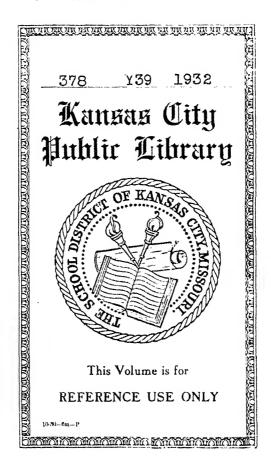
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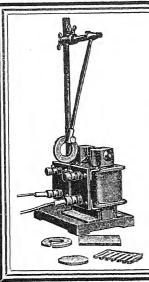
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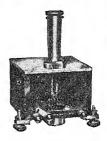
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# THE YEARBOOK OF THE UNIVERSITIES OF THE EMPIRE

1932

EDITED BY
SIR H. FRANK HEATH
G.B.E., K.C.B.

#### PUBLISHED FOR

THE UNIVERSITIES BUREAU OF THE BRITISH EMPIRE

BY

G. BELL AND SONS, LTD LONDON 1932

#### PREFACE

THE Yearbook was first published in 1914. Before its advent the official University Calendars were the only authentic sources of information regarding the personnel, organization, regulations, and recent activities of universities. When British universities were few and university men took but little interest in the affairs of any except their own, the Calendars sufficed; but there are now 70,\* and each takes a growing interest in the others. The Calendars constitute a library of no mean dimensions-some 50,000 pages-and hardly anywhere except at the Universities Bureau are they all accessible. Much of their contents is of strictly local interest. In the Yearbook an attempt is made to select from these bulky volumes such information as is likely to prove of interest to members of other Universities and Colleges, to Government Departments, Clubs, schoolmasters, and the public generally. It would be impossible to present a conspectus of this kind in a volume of manageable dimensions without resorting to the use of abbreviations and other devices for saving space. It is hoped that abbreviation has not been pressed beyond the limits of intelligibility.

In chapters introductory to the sections dealing with the Universities of Great Britain and Ireland, of Canada, of Australia, of South Africa, and of India, is collected information regarding their history, regulations, and practice. The introductory chapter on Australia has been revised and brought up to date this year, as that on Canada was in last year's issue. Each section comprises three parts:

- (r) A directory of the officers and members of the staff of the University. The Editor has in the main to rely for the accuracy of this list upon the officials of the several Universities and Colleges who assist him by sending in annual corrections, but an attempt has been made, by a study of announcements made in the public press, in University Gazettes and the like, to bring the list, so far as possible, up to date at the time of going to press. The other sections under the various institutions deal with the academic year 1930–31 or (in the case of those south of the
- \* Exclusive of St. David's College, Lampeter, Victoria University, Toronto, now amalgamated with the University of Toronto, and the Hebrew University, Jerusalem, in the Mandated Territory of Palestine.

equator) with the calendar year 1930, since the academic year runs in these Universities from March to November or December. The Directory gives the degrees held by the teachers as well as the University by which they were granted. If no name of a university follows a degree, it may be assumed that the degree was conferred by the university upon whose staff the teacher is serving.

With the exception of honours conferred by H.M. the King, titles other than degrees are omitted, unless they throw light upon the standing of their holders in the subjects which they profess.

- (2) Under the heading "General Information" an account is given of the equipment of libraries, museums, laboratories, etc., of the university, the degrees, diplomas, and certificates which it confers, its composition fees, scholarships, etc., residential accommodation, extra-mural work, publications, etc.
- (3) Reports of events of outstanding interest which occurred during the past academic year follow. They include statistics of the numbers of students in attendance and the degrees conferred.

The Appendices include: (a) Summaries of regulations for the diplomas of the Medical Colleges and other Associations and Institutions of the United Kingdom, and the conditions governing admission to various professions and careers for which university studies are a fitting preparation; (b) matriculation examinations; (c) admission of students from abroad into the Universities of the United Kingdom; (d) lists of open post-graduate scholarships, fellowships, and grants for research available in the Empire and abroad to British subjects; \* (e) lists of centres of scientific research and of scientific information, whether connected with the universities or not, with information as to the admission of independent research workers. These last particulars are not available in any other publication, and the Universities Bureau believes that in view of the great development that has taken place of recent years in research throughout the Empire, and the growing interest shown in it by all classes, particularly by University students. the publication of these appendices will be helpful, especially to those living in the Dominions and Colonies overseas. Appendices XXIII. and XXIV., which give the information here described, have been further enlarged but are still imperfect in many particulars, and the Editor will be grateful if his attention is called to omissions or inaccuracies.

A new Appendix (No. XXIX.) has been added giving a short list of

\* Post-graduate scholarships and fellowships open only to graduates of particular universities will be found under the head of each university in the main part of the book.

books on the Universities of this country, and particulars of publications dealing with holiday courses and the exchange of students. The titles of the two international Directories of Universities and other learned institutions of the world hitherto included in Appendix XXVIII. have been transferred to that place.

The General Index includes a series of references which will enable the reader to find the information formerly collected in a special Appendix (Professional Schools, Specialist Studies, etc.).

In conclusion the Universities Bureau acknowledges gratefully the ungrudging help afforded by the official Registrars and other correspondents in the Universities. This help gives the book an authoritative character to which it could not otherwise pretend.

H. F. H.

Universities Bureau of the British Empire, 88A Gower Street, London, W.C.1. March 1932.

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## THE UNIVERSITIES BUREAU OF THE BRITISH EMPIRE

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At the final, Delegates', meeting of the Congress of 1912 it was resolved that steps be taken for the formation in London of a Bureau of Information for the Universities of the Empire. In the spring of 1919 the Government offered a non-recurrent grant of £5000 to enable the Committee to secure and furnish premises suitable for the wide activities which the Bureau had developed, on condition that the Universities of the Empire undertook to provide funds adequate to its maintenance. and the Bureau was incorporated under licence of the Board of Trade. The Committee thereupon purchased the lease of No. 50 Russell Square. In 1930 the lease of these premises was sold and new offices were built at 88A Gower Street (in Torrington Place), W.C.I, on a site the lease of which was taken from the University of London. At the Fourth Quinquennial Congress of Universities of the Empire, held in July 1931, the Bureau placed before Congress the draft of new Articles for its reorganization, and subject to certain amendments these Articles were approved. The Articles as approved by Congress were submitted in September to the Board of Trade, which has since accorded its approval. subject to certain further alterations. Under the new Articles of Association ordinary membership of the Bureau is confined to Universities, and an Executive Council of 21 representatives of Universities at home and overseas will be appointed, in the course of the next few months, to take the place of the present Executive Committee.

The Committee of the Universities Bureau desire to welcome members of any of the Universities of the King's Dominions overseas who may visit London, and to place the resources of the Bureau at their disposal.

Offices at 88A Gower Street have been let to-

THE ANGLO-DANISH BUREAU, ESTABLISHED BY THE DANISH STUDENTS' INTERNATIONAL COMMITTEE. Director—J. H. HELWEG, Cand. Mag.

### THE EXECUTIVE COMMITTEE \*

(Appointed in accordance with a resolution of the Delegates to the Congress of the Universities of the Empire, at a Meeting in London on July 5, 1912)

- Edwin Deller, LL.D., Principal, University of London, representing London (Treasurer).
- E. J. GWYNN, Litt.D., Provost of Trinity College, Dublin, representing Ireland.
- Sir W. Henry Hadow, C.B.E., M.A., D.Mus., representing Durham, Leeds, Liverpool, Manchester, and Sheffield.
- A. J. HARROP, M.A., Ph.D., representing New Zealand.
- Sir Thomas H. Holland, K.C.S.I., K.C.I.E., LL.D., D.Sc., F.R.S., Principal and Vice-Chancellor, University of Edinburgh, representing Scotland.
- T. LOVEDAY, M.A., LL.D., Vice-Chancellor, University of Bristol, representing South Africa.
- Rt. Hon. Lord Lugard, G.C.M.G., C.B., D.S.O., D.C.L., LL.D., representing Malta and Hong Kong.
- Prof. J. J. R. Macleod, LL.D., D.Sc., M.B., Ch.B., F.R.S., representing Canada.
- Sir Theodore Morison, K.C.S.I., K.C.I.E., C.B.E., M.A., D.C.L., representing India.
- T. Franklin Sibly, LL.D., D.Sc., Vice-Chancellor, University of Reading, representing Birmingham, Bristol, Reading, and Wales (Chairman).
- Will Spens, C.B.E., M.A., Vice-Chancellor, University of Cambridge, representing Cambridge.
- H. MARSHALL TORY, M.A., LL.D., D.Sc., F.R.S. Can., representing Canada.
- E. M. WALKER, M.A., LL.D., D.D., Provost of Queen's College, representing Oxford.
- Prof. J. T. Wilson, M.A., LL.D., M.B., F.R.S., representing Australia.
  - Hon. Director: Sir H. Frank Heath, G.B.E., K.C.B., B.A., Ph.D. Secretary: W. B. Brander, C.I.E., C.B.E., M.A.
- \* This Committee will be replaced in the course of the year by an Executive Council appointed under the new Articles of Association, cf. p. x.

### QUALIFICATIONS OTHER THAN UNIVERSITY DE-GREES REFERRED TO IN THE YEARBOOK BY LETTERS AFTER NAMES

For initial letters of titles of degrees vide p. 14.

[See also lists of medical qualifications in Appendix XI. In the appendices relating to the various professional associations some account is given of the examinations, etc., whereby their qualifications are obtained.]

```
A.C.A.
A.C.G.I.
                                . Associate of Institute of Chartered Accountants.
                                                    City and Guilds of London Institute.
A.C.I.S.
                                                    Chartered Institute of Secretaries.
                                          ٠.
A.I.C.
                                                    Institute of Chemistry.
                                         ,,
A.K.C.
                                                    King's College.
                                         ,,
A.L.S.
                                                    Linnaean Society.
                             . Art Master's Certificate.
A.M.C.
A.R.A.M.
                              . Associate of Royal Academy of Music. . ,, , College of Art.
A.R.C.A. . . A.R.C.M. . . A.R.C.O. . . A.R.C.S. . . A.R.C.S.I. .
                                                                         Music
                                        ,,
                                                     ,,
                                                                  ,,
                                                                          Organists.
                                       ,,
                                                    ,,
                                                                 ,,
                                                                          Science.
Science, Ireland.
                                      ,,
                                                  " Science, Ireiana.
" Society of Painter Etchers.
" Institute of British Architects.
" School of Mines.
" Technical College, Glasgow.
" Society of Painters in Water-Colours.
" Textile Institute.
                                       ,,
A.R.E.
                                       ,,
A.R.I.B.A. .
                                      ,,
A.R.S.M.
                                      ,,
A.R.T.C.
                                       ,,
A.R.W.S.
                                      ,,
                             . ", Textile Institute
Chartered Accountant.
Chartered Accountant of Australia.
College Diploma in Agriculture.
Horticulture.
A.T.I.
C.A. .
C.A.Aust. .
C.D.A.
C.D.H.
                             Croix de Guerre.
City and Guilds Institute.
Chevalier de la Légion d'Honneur.

    Diplôme d'Etudes Supérieures.

Dip.T.C.
D.I.C.
                              Diploma of the Technical College, Zürich.

Diploma of Imperial College of Science and Technology.

" in Medical Radiology and Electrology.

" in Ophthalmic Medicine and Surgery.
D.M.R.E. .
D.O.M.S. .
D.P.H.
                                               in Public Health.
D.P.M.
D.S.C.
                                              in Psychological Medicine.

    in Psychological Medicine.
    Distinguished Service Cross (Naval).

D.T.M.
D.V.S.M.
                              . Diploma in Tropical Medicine.
. in Veterinary State Medicine.
                              . ,, in Veterinary State Medicine.
. Fellow of the American College of Surgeons.
F.A.C.S.
F.A.I.
                                                Auctioneers' Institute.
                                      ,,
F.B.A.
                                                British Academy.
F.C.A.
                                                Institute of Chartered Accountants.
                                       ,,
F.C.S.
F.C.I.S.
F.G.S.
                                               the Chemical Society.
                                       ,,
                                                the Chartered Institute of Secretaries.
                                      ,,
                                              Geological Society.
                                     ,,
F.I.A.
                                              Institute of Actuaries.
                                       ,,
                                                                Chemistry.
F.I.C.
                                       ,,
                                                      .,
F.I.C.A.
                             Licentiate in Philosophy.
                                                                Chemistry, Australia.
Fil.Lic. (Upsala) .
                              . Fellow of the Institute of Physics.
F.I.P.
F.I.S.E.
                                                    Institution of Structural Engineers.
                                         ,,
F.L.A.
                                                    Library Association.
                                         21
F.L.S.
                                                    Linnæan Society.
                                          ,,
F.Ph.S.L.
                                                     Physical Society of London.
```

### QUALIFICATIONS REFERRED TO BY LETTERS xiii

```
F.R.A.I.
                          . Fellow of the Royal Anthropological Institute.
F.R.A.M.
                                                   Academy of Music.
                                   ,,
                                              ,,
F.R.A.S.
                                                    Astronomical Society.
                                    ,,
F.R.C.O.
                                                    College of Organists.
                                   ,,
                                               ,,
F.R.C.P.
                                                               Physicians, London.
                                    ,,
                                               ,,
                                                        ,,
F.R.C.P. Can.
                                                                             Canada.
                                   ,,
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                                                         ,,
F.R.C.P.Ed.
F.R.C.P.I.
                                                                             Edinburgh.
                                   ,,
                                               ,,
                                                        ,,
                                                                     ,,
                                                                             Ireland.
F.R.C.S.
F.R.C.S.Can.
F.R.C.S.Ed.
F.R.C.S.I.
F.R.C.V.S.
F.R.F.P.S. Glas.
                                   ,,
                                               ,,
                                                         ,,
                                                               Surgeons of England.
                                   ,,
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                                                        ,,
                                                                            Canada.
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                                                        ,,
                                                                     ,,
                                                                            Edinburgh.
                                   ,,
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                                                        ,,
                                                                     ,,
                                                                             Ireland.
                                   ,,
                                               ,,
                                                                Veterinary Surgeons.
                                   ,,
                                              ,,
                                                   Faculty of Physicians and Surgeons of Glasgow.
                                   ,,
                                              ,,
F.R.I.B.A.
                                                   Institute of British Architects.
                                   ,,
                                              ,,
F.R.S.
                                   ,,
                                                   Society.
                                              ,,
F.R.S.C.
                                                   Society of Canada.
                                   ,,
                                            Society of Antiquaries.
F.S.A.
                                   ,,
                                            Society of Accountants and Auditors.
F.S.A.A.
                                   ,,
F.S.I.
F.S.S.
                                            the Surveyors' Institute.
                                            Royal Statistical Society.
                                   ••
F.Z.S.
                                            Zoological Society.
                         . Hon. Chaplain to the King.
K.H.C.
                          . Hon. Physician to the King.
K.H.P.
K.H.S.
                          . Hon. Surgeon to the King.
                          . Licentiate of the College of Preceptors.
L.C.P.
                                        in Dental Surgery.
L.D.S.
                          Lady Literate in Arts (St. Andrews).
Licentiate in Medicine and Surgery, Society of Apothecaries, London.
L.L.A.
L.M.S.S.A.
L.R.A.M.
                                         Royal Academy of Music.
                                  ••
                                         of the Royal College of Physicians, London.
L.R.C.P.
                                  ,,
L.R.C.P.I.
                                                                                Ireland.
                                  ••
                                                       Colleges of Physicians and Surgeons of
L.R.C.P. and S. Edin.
                                                          Edinburgh.
                                                         College of Surgeons, Ireland.
L.R.C.S.I.
                                  ,,
                                                ,,
L.R.F.P.S. Glas. .
                                                       Faculties of Physicians and Surgeons of
                                                          Glasgow.
                                                       Institute of British Architects.
L.R.I.B.A. .
                                         of the Society of Apothecaries.
L.S.A.
                          . Member of the American Society of Civil Engineers.
M.Amer.S.C.E.
                                         the Engineering Institute of Canada.
M.E.I.C.
M.I.Ae.E.
                                         Institution of Aeronautical Engineers.
                                  ,,
                                                         Automobile Engineers.
M.I.A.E.
                                  ••
                                                ..
M.I.Chem.E.
                                                         Chemical Engineers.
                                  ,,
                                                ,,
M.Inst.C.E.
                                                         Civil Engineers.
                                 ..
                                                ••
M.Inst.E.E.
                                                         Electrical Engineers.
                                 ,,
                                                ,,
                                                         Mechanical Engineers.
M.I.Mech.E.
                                  ••
                                                ,,
M.Inst,M. and Cy.E.
                                                         Municipal and County Engineers.
                                  ,,
                                                ,,
M.I.Min.E.
                                                         Mining Engineers.
                                  ,,
                                                ,,
M.Inst.M.M.
                                                                 and Metallurgy.
                                  ,,
                                                ,,
M.I.N.A.
M.I.P.T.
                                                         Naval Architects.
                                  ,,
                                                ,,
                                                         Petroleum Technologists.
                                  ,,
                                         the Institute of Structural Engineers.
M.I.Struct.E.
                          . Military Medal.
M.M. . . .
M.N.Z.S.C.E.
M.P.S. . .
                                         the New Zealand Society of Civil Engineers.
                                         the Pharmaceutical Society.
M.R.C.P. M.R.C.P.Ed. M.R.C.P.I. .
M.R.C.S. .
M.R.C.S.I. .
M.R.C.S.I. .
M.R.C.S.I. .
                            Member of the Royal College of Physicians, London.
                                                                              Edinburgh.
                                                         ,,
                                                                     ,,
                                                                              Ireland.
                                  ,,
                                              ,,
                                                         ,,
                                                                Surgeons of England.
                                  ••
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                                                         ,,
                                                                              Ireland.
                                  ,,
                                                         ,,
                                                                Veterinary Surgeons.
                                  ,,
M.R.I.A.
                                         the Royal Institute of Anthropology.
                                  ,,
M.R.S.I.
                                         the Royal Sanitary Institute.
                                  ,,
M.S.A.
                                         the Society of Architects.
                                  ,,
                                         the Town Planning Institute.
M.T.P.I.
                          . National Diploma in Agriculture.
N.D.A.
                                                    Dairying.
Poultry Husbandry.
N.D.D.
N.D.P.
                                  ,,
                                        Froebel Union.
N.F.U
```

## xiv QUALIFICATIONS REFERRED TO BY LETTERS

O.A. O.I.P. O.Lég. d'H. O.M.I. . Officier de l'Académie. . ,, de l'instruction publique.
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N.B.—The letters used in the Yearbook are not in all cases those authorized by the Associations; e.g. M.Inst.C.E. is sometimes abbreviated to M.I.C.E., M.I.Mech.E. to M.I.M.E., F.Inst.P. to F.I.P.

# UNIVERSITIES OF GREAT BRITAIN AND IRELAND

HISTORICAL SUMMARY—ADMISSION AS AN UNDERGRADUATE—ADMISSION OF STUDENTS FROM ABROAD—NUMBER OF FULL-TIME STUDENTS—NATIONAL UNIONS OF STUDENTS—TERMS—FEES—SCHOLARSHIPS—LIBRARIES—UNIVERSITY GRANTS—REPRESENTATIVES IN PARLIAMENT—UNIVERSITY EXTENSION—CONFERENCES—STANDING COMMITTEE OF VICE-CHANCELLORS—INTERNATIONAL CONFERENCES—INTERCHANGE OF TEACHERS AND STUDENTS—CONGRESSES OF THE UNIVERSITIES OF THE EMPIRE—DEGREES.

Universities were the outcome of the great intellectual revival which affected Europe in the twelfth and thirteenth centuries. Shortly after the Schools of Bologna and Paris had developed into what we now term Universities, similar seats of learning arose at Oxford and Cambridge, the nucleus of organization being, as at Paris, a corporation of mastersnot, as at Bologna, a corporation of students—and many of the students being boys of fourteen or even younger. Instruction was in the form of lectures by licensed teachers. To the Seven Liberal Arts of the medieval schools (the "trivium"—GRAMMAR, LOGIC, and RHETORIC, and the "quadrivium"-ARITHMETIC, GEOMETRY, MUSIC, and AS-TRONOMY) the Universities added the three higher "Faculties" of THEOLOGY, LAW, and MEDICINE in order to provide complete preparation for the learned professions. The Scottish Universities, except Edinburgh, were founded in the fifteenth century, but the country had not been greatly influenced by the Revival of Learning, and although the earliest Reformers were in touch with continental scholars, and some attempts were made to introduce the New Learning into the schools and universities, the mediæval scholastic tradition remained paramount in St. Andrews and Glasgow until the seventeenth century. Aberdeen was more receptive to renaissance influences. The University of Edinburgh originated in a College established by the Town Council in 1583. Trinity College, Dublin, was founded by Queen Elizabeth in 1591 on the lines of the Oxford and Cambridge colleges.

After the Reformation a demand arose in England for education of a more secular type, but the Acts of Uniformity (1559 and 1662) and similar measures stereotyped the schools and universities as clerical and theological institutions, and by the latter half of the eighteenth century the teaching in the Universities had become mainly traditional and formal, and they were rapidly losing their hold on the national life.

Readjustment to modern conditions took place in the course of the nineteenth century. Already in 1779 Protestant Dissenters, and in 1791 Roman Catholics, had been emancipated from the ban against their following the teaching profession. The few Denominational tests retained by the older Universities were abolished in 1871. Oxford in 1800 established a system of written examinations for the bachelorship, and Cambridge in 1824 the classical Tripos. Soon afterwards both Universities instituted non-classical Honour examinations. The University Commissioners of 1850 and 1877 made provision at Oxford and Cambridge for the endowment of the teaching of modern subjects, and the throwing open of scholarships to students of such subjects removed practically all obligations to take orders in the Church England, and did much to make the Universities accessible to all classes of the community.

Meanwhile the foundation in 1827 on a strictly undenominational basis of the "University of London," which obtained a charter in 1836 as University College, London, provided a teaching institution of University rank which was free from all restriction of tests and dared to include Chemistry and Engineering in its curriculum. The University of London received its charter at the same time and the University of Durham in 1837. In its original conception Durham followed closely the lines of Oxford. It was partly endowed out of the funds of the See and Chapter of Durham. The Colleges in which the other English Universities originated were founded as follows: Owens College, Manchester, 1851; Yorkshire College, Leeds, 1874; University College, Bristol, 1876; Firth College, Sheffield, 1879; Mason College, Birmingham, 1880; University College, Liverpool, 1881; the University Extension College, in conjunction with the Schools of Science and Art, Reading, in 1892. Created to minister to local needs and supported largely by local benefactions, they were naturally closely associated with local industries, and from the first laid stress upon the study of mathematical, scientific, and modern subjects. Reading differs from the others in having been established in a town of comparatively small size (population less than 100,000), in the prominence given to work bearing on the agricultural and associated industries, and in its policy of making residence in college or hostel the rule for its students. The Royal College of Science and the Royal School of Mines originated in a Technical School formed in 1851 in connexion with a Museum of Practical Geology. They, with the City and Guilds (Engineering) College, founded in 1881, became integral parts of the Imperial College of Science and Technology which was established in 1907 with the declared purpose of giving the highest specialized instruction and providing for research in the various branches of science, especially in its applications to industry.

A University of Wales was projected early in the fifteenth century, and the project was revived in Cromwell's time, but it did not materialize until 1893. The constituent colleges at Aberystwyth, Cardiff, Bangor, and Swansea were founded in 1872, 1883, 1884, and

1920 respectively. They are thoroughly indigenous to the Principality. much of the funds having been collected in very small sums from workpeople at the doors of churches and chapels.

The two modern Irish Universities both date from 1909. In 1850 a Royal Charter was granted to the then recently established Queen's Colleges of Belfast, Cork, and Galway, constituting them a Federal University, which was absorbed in 1880 in the Royal University. University College, Dublin, representing the Catholic University established by the Irish Bishops in 1854, became with the Cork and Galway Colleges in 1909 constituents of the National University of Ireland, while Queen's College, Belfast, became the Queen's University of Belfast.

Women were first admitted to Degrees by the University of London in 1878. Bedford College had already been founded in 1849; the three other colleges for women in connexion with the University of London were founded, Westfield in 1882, Holloway in 1886, and King's in 1902. The last was merged in King's College, London, in 1885. King's College of Household and Social Science was founded in 1908 as a department of King's College for Women, and became a separate "School" of London University in 1928. Of the Cambridge colleges, Girton originated at Hitchin in 1869, and was removed to the near neighbourhood of Cambridge in 1873; Newnham was founded in 1880. The colleges at Oxford were opened, Lady Margaret in 1878, Somerville in 1879, St. Hugh's in 1886, and St. Hilda's in 1893. Cambridge admitted women informally to Tripos examinations in 1872 and to the titles of degrees in 1923; in 1926 women were declared eligible to university teaching posts and therefore to membership of boards of faculties. Oxford admitted them to examinations in 1884, to degrees and full membership in 1920, and to university teaching posts in 1927. Women have been admitted to the Universities of Scotland since 1892, Durham since 1896, Dublin since 1904, and to all the modern Universities from their foundation.

Unlike those of most other countries, the Univs. of the United Kingdom have been, since their origin, independent of State control. Another distinguishing characteristic of British Univs., as compared with those of the Continent of Europe, has from the earliest days been the provision of halls of residence, or COLLEGES, in which students live as members of a community, with the privileges of social intercourse and subject to the mutual influence which corporate life exerts.

Pursuant to the recommendations made by the Royal Commission of 1919, important constitutional and other changes have been effected at Oxford and Cambridge by the Statutory Commissioners appointed

in 1923. See the sections relating to these universities.

Admission as an Undergraduate. Before inserting a student's name in matricula all Univs. exact evidence that the applicant's intellectual equipment fits him to undertake a course of study for a degree. This is tested either by a matric. examn. held by the Univ. or group of Univs. concerned (Camb. "Previous," Oxf. "Responsions," Scot. Univs. "Prelim."), or by the candidate's performance in an equivalent examn. The subjects in which the candidates are tested

in the matric. examn. by the Univs. are English, one or more languages other than Eng. (classical or foreign), Maths., and/or Science; and a pass in 5 subjects at one and the same examn. is, as a rule, demanded. The grouping of the several subjects varies in the different Univs. For details see App. XX. Many of the Oxford and Cambridge Colleges make the passing of Responsions or the Previous or equivalent examns. a condition of admission to the College. Bristol has discontinued its matricn. examn. as superfluous in view of the institution of the School Certificate and Higher Certif. examns. (v. infra), and the admission to them of candidates not presented by schools. Durham has followed Bristol's example so far as the Colleges at Newcastle are concerned. Reading holds neither school examns. nor, except for candidates of mature years (25 or over), a matriculation examn., accepting, instead, credentials required by London or the Joint Board.

A Matriculation Examination for persons of mature years has been instituted by the above-mentioned Joint Board (v. App. XX.), and by London, Belfast, and Reading. Armstrong College has a special examn. for candidates proposing to read for a degree in Applied Science who have been engaged in technical pursuits for 2 years.

School Examinations.—England and Wales. A scheme originated by the Board of Education in consultation with all the Univs. of England for co-ordinating Secondary School examns, came into operation in England in 1918 and in Wales in 1920. Under this scheme the following are recognized by the Board as approved—

I. As "First Examinations," suitable for pupils about the age of 16, the standard being such that a Pass with Credit in a certain number of subjects in the three main groups of School subjects (English subjects, Foreign Languages, Mathematics and Science) would entitle a candidate

to admission to a Univ.:--

"School Certificate" examns. of the Oxford and Cambridge Schools Examn. Board, of the Oxford Delegacy for Local Examns. and the Cambridge Local Examns. Syndicate (formerly known as "Senior Local" examns.), of the Univs. of Bristol and Durham, and of the Northern (Birm., Leeds, Liv., Manc., Sheff.) Univs. Joint Matricn. Board; "The General School" examn. of London; and the School Certificate examn. of the Central Welsh Board.

In addition to the three groups of subjects above mentioned, First Examinations include a fourth group of optional subjects, such as Music, Drawing, Manual Work, Needlework, Housecraft. Excellence in these subjects will not exempt a candidate from the necessity of

reaching a minimum standard in each of the other groups.

II. As "Second Examinations," suitable for pupils about 2 years older, framed on the assumption that the candidate has, after the stage marked by the first examn., followed a more specialized course:—The "Higher Certificate" examns. of the Oxford and Cambridge Schools Examns. Board, Bristol, Durham, the Northern Univs. Joint Board, London, Oxford (Delegacy for Local Examns.), Cambridge (Syndicate for Local Examns.), and the Central Welsh Board.

With a view to securing equality of standard and the acceptance of the certificates by Univs. and Professional Bodies, the Board of Education exercises a co-ordinating authority with the help of a "Secondary School Examinations Council" composed of 23 representatives of the Examining Bodies, County Councils Assocn., Assocn. of Municipal Corporations, Assocn. of Education Committees, and Teachers' Registration Council. The Examinations Council keep in close touch with the Examining Bodies and conduct a regular scrutiny of their statistics, regulations, and syllabuses. In addition a detailed investigation of the methods and standards of award is held from time to time. Provision is made for ensuring that teachers in the Schools are brought into touch with the Examining Bodies (supplied in all cases by the Univs.); that a School is examined, if it so desires, on its own syllabus, unless the Examining Body considers it inadequate; and that estimates of the merits of their candidates in each of the subjects offered by them, if submitted by Head Masters and Head Mistresses, are taken into account in the award of certificates.

Schools are not required as a condition of recognition for grants from the Board of Education to take these examns., but Schools on the grant list entering pupils for them under conditions approved by the Board receive an additional grant in respect of the examn. fees of each pupil so entered. The entrance of pupils attending grant-earning secondary schools for any examination below the stage of a First Examn. is closely restricted.

Among the functions of the Secondary School Examns. Council is negotiation with Univs. and Professional Bodies for the acceptance of the examn. certificates as exempting the holders from certain other examns. They are now accepted, subject to various qualifications, by all English Univs. and by a number of professional bodies (v. Appendices), as exempting from entrance examns. The "Second Examinations" are also recognized by many Univs. for exemption from Intermediate Exams, and for admission to Honours courses, etc.

Wales. The School Certificate of the Central Welsh Board showing a pass with credit at one and the same examn. in all the required subjects of the matricn. examn. is accepted by the Univ. for matricn.; so, also, are certifs. of the other First Examns. (except Durham's), the Scotch Educn. Dept.'s Leaving Certif. (Higher Grade), the Senior Certif. of the Ministry of Educn. for Northern Ireland, and the Leaving Certif. of the Interm. Educn. Commissioners of the Irish Free State.

Scotland. On December 31, 1918, there came into operation Ordinance No. 70 (General No. 3) of the University Courts of the four Scottish Univs. as to Admission for purposes of graduation. This defines the normal test of fitness as "the production of evidence duly attested by a competent authority of the satisfactory completion of a suitable course of secondary education," and sets up an Entrance Board to regulate the application of this principle. This Board, which has superseded the Joint Board of Examiners for the Scottish Univs., has provided by "General Regulations" for the recognition of Group Certifs. of the Scotch Education Dept. and, in the case of Schools in Scotland not

regularly presenting candidates for these certifs., other evidence of completion of suitable courses. It has similarly provided for the recognition of Leaving or other certifs., in the case of applicants from outside Scotland. The admission of applicants who, owing to exceptional circumstances, have not been able to fulfil the normal conditions is provided for by "Special" Regns.

Ireland. The Leaving Certificate of the Dept. of Education of the Irish Free State or the Senior Certificate of the Ministry of Education of Northern Ireland is accepted by the Univ. of Dublin and the National Univ. of Ireland, subject for subject, in lieu of their matricn. examns., and (subject to special conditions in respect of Maths.) by Belfast. Belfast and the N.U.I. also accept, subject for subject, the Scottish Leaving Certif. (Higher or Hons.), the Higher Certif. of the Ox. and Camb. Schools Examn. Board, and (Belfast only) the Bristol School Certif. For admission to the Univ. of Dublin the Senior Lecturer is now allowed to recognize examns. as "equivalent" to the Entrance examn., and does so recognize the Scottish Leaving Certificate and others.

School Examinations in other Countries. In Appendix XXI. are particulars of the recognition accorded by certain Univs. in the United Kingdom to School-leaving examns. conducted by Ministries of Education in Canada, Australia, South Africa, Palestine, and Egypt, and Boards of High School and Intermediate Education in India. This is done explicitly by Oxford, Cambridge, the Northern (English) Univs. Joint Board, Wales and the Scottish Univs. Entrance Boards.

Admission of Students from the King's Dominions overseas and from Foreign Countries. Certificates which would qualify for admission to Univs. outside the United Kingdom are accepted as satisfying, in whole or in part, the matricn. requirements of the Univs. of the United Kingdom. Intending students should apply for information to the Registrar of the Univ. in which they desire to be matriculated. The regulations are summarized in Appendix XXI.

The number of full-time students in Universities and University Colleges in receipt of Treasury Grant is given in the Returns published by the University Grants Committee for the year 1929-30 as 45,603, including 12,921 women. To these must be added the students of the Irish Universities and of certain schools of the University of London not in receipt of Parliamentary Grant, making a total of, approximately, 50,000. The above statistics do not include the students of the institutions, other than Universities and University Colleges, in which professional education of university grade is given in Theology, Teaching, Agriculture, Mining, etc.; nor students reading privately for the external degrees of the University of London, for the Bar, etc. This makes comparison with statistics of other countries difficult, as does also the fact that the work of the higher forms of many of our secondary and "public" schools corresponds with the earlier stages of the work done in Colleges and collegiate departs. of some foreign Univs., e.g. in America.

A NATIONAL UNION OF STUDENTS of the Univs. and Univ. Colleges

of England and Wales was formed in Feb. 1922 "to represent the students of this country nationally and internationally," and to promote their educational and social interests in entire independence of all political or religious propaganda. It is a federation of Unions, Guilds, and Student Representative Councils. It is affiliated to the Confédération Internationale des Étudiants (see Appendix XXV.), through which it has taken an active part in promoting foreign travel of English students and stimulating intercourse with students abroad. A particularly important Dept. is that for Exchange and Tuition Visits which arranges each year many hundreds of exchanges between British and foreign students.

Similar National Unions exist in Canada, South Africa, Australia, and New Zealand, and there have been two conferences of Student Unions of the Empire, the first held in London and Cambridge in July 1924, and the second in Montreal in Sept. 1929. The purpose of these conferences has been to discuss ways and means of practical co-operation among the students of the Empire and questions of general Imperial interest. As a result of them it is possible to arrange periodic visits of Debating Teams from Gt. Britain to the Dominions and vice versa, and among the various Dominions themselves. Large groups of South African students have visited England on three occasions, and such visits will probably become annual events. The formation of the Dominion Students' Athletic Union with headquarters in London was a direct outcome of the first Imperial Students' Conference, and the existence of this Union makes it possible to arrange the participation of Dominion Teams in the International University Games and to promote athletic fixtures between teams of Dominion Students resident in England and teams representing the British Universities. Publication—" The University," once a term, 6d. Address-3 Endsleigh Street, London, W.C.I.

THE STUDENTS' REPRESENTATIVE COUNCILS OF SCOTLAND. Students' Representative Councils of the four Scottish Univs. have recently appointed a permanent Secretary and organized themselves into a National Body under the above title (S.R.C.S.). Secretary (to whom all communications should be sent), Charles G. Brown, 12 Golden Square, Aberdeen. The S.R.C.S. is a Member of the International Confederation of Students, annually holds an inter-University Conference, and conducts its domestic government by means of an Executive Council consisting of the Senior Members of each of the Univs. maintains offices for the organization of student travel, reception of foreign students and student exchange and tuition visits. Communications on these subjects should be addressed to "The Travel Secretary, S.R.C. Offices, The University, Edinburgh." It also maintains what is called an "Honorary Academic Consulate." In almost every Univ. town of the world a Consul has been appointed. This individual gives to Scottish students and graduates a general introduction to the City and Univ. where he acts. The full facilities of this Consulate have now been given to the National Union of Students of England and Wales. Keeper of the Consulate—Charles G. Brown (address as above).

TERMS. The academic year is divided into three terms, which run

from about Oct. I to the middle of Dec.; middle of Jan. to end of March; middle of April to end of first week in July.

FEES are charged by all Universities. They vary somewhat in the different Univs., but are, on the average, for Arts £30, for Science £36, for Engineering or for Medicine £30 to £60 per annum in English Univs. In Scottish, Welsh, and Irish Univs. the fees are lower.

Scholarships. Few countries offer a richer variety than England and Wales of facilities for access to the highest forms of education. The lead of the "pious founder" has been followed by city companies and professional bodies, and, since the Education Act of 1902 brought higher education within the purview of Local Authorities, by the State. The response to the principle which found expression in the words of Mr. Fisher's Education Act of 1918 that "children and young persons should not be debarred by inability to pay fees from receiving the benefits of any form of education by which they are capable of profiting "has been so remarkable that L.E.As. are now assisting more students to take courses at Univs. than they were helping to obtain Secondary education before the Act of 1902 was passed. From the grant-aided Secondary Schools of the country alone, with their 417,000 pupils (on Oct. 1, 1930), over 198,000 of whom were free pupils, a steady stream of some 3800 students, more than 64 per cent. of whom were previously educated in Public Elementary Schools, passes each year to the Univs. and University Teachers' Training Departments. The number of scholarships available and their variety, as regards conditions of tenure, put any attempt to give a comprehensive list out of the question. Those in search of assistance should apply for their Local Education Authority's Scholarship Handbook.\* The main agencies in England and Wales by which scholars are assisted to attend Univs. may be classified, in the order of the probable number of awards made and the annual expenditure incurred: (i.) Local Education Authorities. The majority of awards are given to candidates who have done good work in College Scholarship and the Higher School Certificate Examns., though a number of Authorities hold examns, of their own or grant assistance upon a consideration of school records. The expenditure of L.E.As. for 1929-30 in aid to students at Univs. was £281,520. (ii.) "Open" Scholarships awarded by the Univs. or their individual Colls. A brief notice of scholarships open to graduates will be found in the general information regarding each Univ. No particulars are readily available to show the total number of entrance scholarships and exhibitions awarded annually. About 550 awards are made each year by Oxford and Cambridge. (iii.) State Scholarships. About 300 are now awarded annually by the Board of Education to boys and girls in full-time attendance at grant-aided Secondary Schools, on the recommendation of the Bodies that conduct the Higher Certificate Examns. The scholarships are tenable by students reading

\* Some of the Scholarship Handbooks, e.g. that published by the London County Council (P. S. King & Son, Ltd., 14 Gt. Smith St., Westminster, S.W.1, price 3d.) include a great deal of information in regard to general sources of assistance open to the whole country as well as assistance available for persons actually resident in the particular area,

for an Honours degree. Analyses of these awards and the courses and degrees taken will be found in the statistical information published annually by the Board of Education. The expenditure upon awards current during the year which ended on the 31st March 1931 was £75,424. (iv.) Leaving Scholarships and Exhibitions awarded by Endowed Schools. The expenditure upon such awards current in the year 1929-30 from the 467 Endowed Schools on the grant list of the Board was £40,505. these must be added 356 Schools recognized as efficient by the Board, but not on the grant list, for which figures are not readily available. (v.) Charities unattached to Schools, but with power to offer Exhibitions under their Instruments of Government. The number of educational charities in the country is extremely large. Information in regard to scholarships available in any particular area can usually be obtained by application to the L.E.A. Some of the larger funds open to the whole country are indicated in App. XXIII. Further particulars will be found in the Annual Charities Register and Digest. It should be understood that assistance is often accorded from complementary sources. The holder of a Major Scholarship of a L.E.A. may, for instance, also hold a State Scholarship or College award, or possibly (with an upward limit of the total amount) all three. In Ireland conditions are similar. For Scholarships in Scotland, v. p. 293 f.

LIBRARIES. (See also "Libraries" under the Univs. below.) A Library Co-operation Inquiry Office has been established by the Association of University Teachers with the help of a grant from the Carnegie United Kingdom Trustees. It endeavours to discover for research workers in what library, if any, any publication or MS. is available, and whether it can be lent. All inquiries must be made through the librarian of a university or college accompanied by a statement as to the libraries already applied to unsuccessfully. Address: The Information Dept., National Central Library, Galen Place, Bury Street, London, W.C.r. Full details of all university and college libraries may be found in The University and College Libraries of Great Britain and Ireland: a Guide to the Material Available for the Research Student, by L. Newcombe, Bumpus, 1926. This book gives details of the contents of some 300 university and college libraries, with special reference to those collections which are likely to be of value to the research student. The Association of Special Libraries and Information Bureaux, 16 Russell Sq., W.C.1, was established in 1925 with the help of a grant from the Carnegie Trustees. In 1928 the Association published in conjunction with the Oxford Univ. Press The Aslib Directory, a guide to sources of specialized information in Great Britain and Ireland. Price  $f_1:$  1s.

THE NATIONAL CENTRAL LIBRARY. Its function is to supply those books which the local library is unable to provide. It does not issue books direct to individuals, but only to the library to which they have access. Every endeavour is made to provide, through its system of Outlier Libraries, any type of educational or vocational book, pamphlet or periodical (costing not less than 6s., and exclusive of textbooks for examns.), on any subject, if a copy is not in the local library.

Advanced scholars and research students may thus obtain books and periodicals not accessible to them elsewhere. No charge is made for books lent, but postage both ways must be paid by the borrowing library, which accepts full responsibility for the safety and return of the books. The address of the local library, if not known, will be supplied on application to The Librarian, N.C.L., Galen Place, Bury Street, London, W.C.I.

Parliamentary Grants to Univs. and Univ. Colls. The grant for 1930-31 was £1,550,000. For the current quinquennium, "subject to the over-riding necessities of national finance," it will be £1,800,000.

REPRESENTATIVES IN PARLIAMENT. In U.K.—Oxford (2), Cambridge (2), London (1), Birmingham, Bristol, Durham, Leeds, Liverpool, Manchester, Sheffield, Reading (2), Wales (1), Scottish Univs. (3), Belfast (1). In N. Ireland—Belfast (4). In Irish Free State—Dublin, Trin. Coll. (3), Nat. Univ. of I. (3).

ADULT EDUCATION. University Extension Courses have been promoted by the Univs. of Cambridge, Oxford and London for the last 50 years. At Cambridge they are known as local lectures and were initiated in 1873. Oxford and London took up the work soon afterwards. These courses number several hundreds and vary in length from 6 to 25 lectures. In 1926 the Universities Extra-mural Consultative Committee was established to consider, especially from the point of view of administration, the many aspects of extra-mural work now undertaken by the Univs., and to contribute towards the formation of a common policy. Each Univ. and independent Univ. Coll. of England and Wales is represented by one member, generally the chief executive officer of the Extra-mural Dept., and certain persons are co-opted. An Annual Report is printed giving a tabular statement of Univ. Extension Courses and other activities of Univ. Extra-mural Depts.

In 1903 The Workers' Educational Association was founded. In 1907 relations were established with Oxford Univ. Since that date relations have been established with all the Univs. and Univ. Colleges, and there are joint committees composed of representatives of the Univ. or College and the W.E.A., which promote Preparatory Classes, Three-Year Tutorial Classes, Advanced Classes, Vacation Courses, etc. Most of these classes and courses are recognized by the Board of Education for purposes of Grant under Chapter II. of the Adult Education Regulations.

The Adult Education Committee was appointed by the President of the Board of Education, in April 1921, to promote the development of liberal education for adults, and in particular to bring together national organizations concerned with the provision of adult education, so as to secure mutual help and prevent overlapping and waste of effort; to further the establishment of local voluntary organizations for the purpose and of arrangements for co-operation with Local Education Authorities; and to advise the Board of Education upon any matters which the Board may refer to the Committee. It has been reappointed by successive Presidents. It includes representatives of all Univs. in

England and Wales, and of the principal voluntary organizations engaged in the work of Adult Education; also four representatives of Local Education Authorities. Assessors are appointed by the Board of Education, the Admiralty, the Army Council, and the Air Ministry. Since 1921 the Committee has been engaged on many inquiries, and their Reports have been published by H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2. The more recent are: No. 6—The Drama in Adult Education. (1s.) No. 7—Full-time Studies. (6d.) No. 8—Natural Science in Adult Education. (6d.) No. 9—Pioneer Work and other Developments in Adult Education. (6d.) No. 10—The Scope and Practice of Adult Education. (1s. 6d.)

The British Institute of Adult Education, 39 Bedford Square, London, W.C.I, is a central co-ordinating body on adult education, having at its headquarters an Information Bureau and Library of Adult Education. Its work includes research into problems connected with the movement and investigation of new methods of progress. The Institute issues a half-yearly Journal of Adult Education and arranges an Annual Conference at which are represented: Local Education Authorities, Universities, Voluntary Associations, and the Board of Education.

Its recent activities included the arrangement of an Exhibition of Mechanical Aids to Learning at S. Kensington in co-operation with the British Assn. for the Advancement of Science.

Conferences. In May 1917 representatives of the Universities and University Colleges met in Conference to devise measures for the further encouragement of Post-graduate Study and Research. It was resolved that it was desirable that a degree should be instituted carrying the title of Doctor, obtainable by graduates of British and foreign Univs. after a course of advanced study and research. The conditions and regulations for such a degree were further considered at adjourned meetings held on May 10, 1918, Jan. 24, 1919, and March 14, 1919. The resulting legislation is summarized on p. 17. Interchange of Teachers and Students, the Tenure of University Offices, Superannuation and Provision of Pensions, and other matters have been considered by Conferences specially convened at various times.

In May 1918 Mr. Balfour summoned at the Foreign Office a Conference of representatives of all the Universities for the purpose of putting before them a proposal that on the invitation of the Govt. of the U.S. a Universities' Mission should be sent to America. At this meeting Mr. Balfour took the opportunity of pressing upon the Univs. the desirability of establishing a representative body to which matters of interest to the Univs. might be referred by Govt. Departments. He urged the necessity of the creation of "an organ of expression" which would voice the desires and aspirations of the British Univs. and represent them in their relations with the Univs. of other nations. At a subsequent meeting Conference resolved that "it is desirable in the interests of the Univs. and of the nation that steps be taken to promote co-operation and mutual consultation among the Univs. of Great Britain and Ireland, and, further, that the Vice-Chancellor or Principal of each

Univ. or a deputy appointed by him, together with the Executive Committee of the Universities Burcau, be appointed a STANDING COMMITTEE to consider any matters of common interest arising out of the proceedings of this Conference or submitted to it by the Govt., and to report from time to time to the Conference."

The Standing Committee of Vice-Chancellors has dealt with such matters as the presentation of the case for Increased Grants to Univs. and Univ. Colleges, leading to the Deputation to the Chancellor of the Exchequer which was received in Nov. 1918, and to similar deputations received in 1924 and 1929; the relations of the Univs. and Univ. Colleges to national schemes for the Promotion of Research; the question of controlling the number of students in professional and other subjects; the recognition of the Special Army Education Certif., as qualifying for matriculation: Fees for Courses of Undergraduate and for Postgraduation Study and the possibility of adopting a uniform scale in each of the several Faculties of all Univs. of the U.K.; the relations of the Univs. to Training Colleges for Teachers; qualification for admission to courses leading to the Ph.D. degree; recognition of foreign school-leaving certificates as qualifying for matriculation; salaries of members of staff; recognition of records of students from Australia, Canada, S. Africa, and India; specialization in certain subjects of study by certain Universities; the mutual recognition of Matriculation examns. and Degree courses of study; Income-tax on funds invested for provision of pensions; Inhabited House Duty on hostels and other legal liabilities of Universities; the replenishing of the libraries of the Univs. of Louvain, Nancy, Tokio.

In 1929 the Standing Committee of Vice-Chancellors was dissolved and an Advisory Committee of Vice-Chancellors and Principals was established in its place, the members of which were appointed by the several Universities (except London) and University College, Southampton. In 1931 the University of London joined the Advisory Com-

mittee.

At the Annual Conference of the University of Great Britain and Ireland held in London on May 11, 1929, the subjects discussed were: "(1) The general standard of attainment required for admission to a university course; and in relation thereto, the curricula of the last two years of school prior to entrance to the University. (2) The study of Biology in the Universities." No Conference was held in 1930 or 1931.

INTERNATIONAL CONFERENCES: Following the Mission to America already referred to, the British Univs. in May 1919 accepted an invitation to appoint a delegation to visit the Univs. of France as guests of the French Republic. In the autumn of 1919 a similar invitation was accepted from the Belgian Govt. In July 1920, 17 Professors of English, and, in July 1921, 32 Professors of History, from many parts of the U.S.A. and the British Dominions overseas, met their colleagues of the Universities of the U.K. in conference at the invitation of the University of London to discuss methods of research and teaching and to elaborate plans of co-operation. The Conference of 1921 synchronized with the opening of the University of London Institute of Historical

Research. A Conference of British and Swiss Universities was held at Bâle in 1922. By invitation of Columbia University a Conference of British and American teachers of English was held in New York in June 1923. An Anglo-American Historical Conference took place at Washington and Richmond (Virginia), Dec. 27-30, 1924, and in London (Institute of Historical Research), July 12-17, 1926, and July 13-18, 1931.

Interchange of Students between the Univs. of the Dominions N and the Univs. of the U.K. See p. 7.

### Congresses of the Universities of the Empire

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The First Congress of the Univs. of the Empire was held in London on July 2 to 5, 1912. All the Universities of the Empire were represented. The Second Congress of the Univs. of the Empire met in Oxford on July 5 to 8, 1921, and the Third Congress was held in Cambridge on July 13 to 16, 1926. For particulars as to the papers read, etc., see the Yearbook for 1930.

Reports of the Proceedings of the Congress, 1912, 1921, 1926, G. Bell & Sons, London, price now reduced to 7s. 6d. net each.

N The Fourth Congress of the Univs. of the Empire was held in Edinburgh from July 7 to 10, 1931. Delegates from sixty-nine Empire Nuniversities were present, as well as a number of representatives from OUnivs., Univ. Colls., Government Depts., Royal Societies, and other British and foreign institutions. H.R.H. The Prince of Wales, as President, formally opened the proceedings of Congress on 3rd July at the Guildhall in the City of London. Visits to Univs. and research institutions and to schools, as well as social gatherings, were also arranged for in London and its neighbourhood. In Edinburgh 7th July was devoted to Congress business, which was chiefly concerned with the proposed reconstitution of the Universities Bureau. The new Articles of Association were approved subject to certain recommendations for minor ralterations. On the remaining days the Congress divided into two sections, which discussed the following subjects: "The University Graduate in Commerce and Industry"; "The Standard and the Conditions of Candidature for Ph.D. in relation to other Post-graduate Qualifications"; "Conditions of Admission to Universities and their Effects": "The Provision of Schemes of Study leading to General ()Honours Degrees "; "Post-graduate Study in Medicine and Surgery"; "Facilities for Overseas Students in British Universities." Addresses Were delivered by the Lord Provost of the City of Edinburgh, by the Marquess of Linlithgow, by Lord Meston of Agra and Dunnottar, and by Sir Donald MacAlister of Tarbert. The speech of H.R.H. The Prince of Wales, the opening addresses above referred to, and a full report of the discussions and of the business proceedings are printed in the Report of the Proceedings of Congress, published by G. Bell & Sons, 1931, price 21s.

Degrees conferred by the Universities of Great Britain and Ireland

The older Universities have developed out of the Univs. of the Middle Ages under the compulsion of internal forces, with very little influence from outside. The historical continuity of their evolution and their individual independence account for certain customs and usages in which they differ one from another and from Univs. in other lands. Their titles of degrees afford an illustration of this. A Univ. of the Middle Ages was a Guild of learned men. Teaching was the craft of the Guild, whose fellowship carried with it the right to teach. admitted aspirant for fellowship was termed a bachelor. The members of the Guild recognized his apprenticeship after submitting him to certain tests or, as we should term them, examns. After gaining some experience in teaching, and successfully maintaining a thesis in public disputation, the bachelor attained to his degree. Admitted into the Guild, with its jus ubique docendi, he was known indifferently as doctor, master, or professor. Still following this ancient usage, the degree in Scotland is the mastership, M.A. In Oxford, Cambridge, and Dublin, where the examn. for the bachelorship grew to be the determining test, the mastership, which carries with it all the privileges of membership of the Guild, or Senate, follows without further examn. after an interval of two or three years, but in no case less than six years from matricn. For convenience in standardizing the attainments of their alumni, modern Univs. have divided the degree into stagesusually described as the "first" and "higher" degrees-Bachelorship, Mastership, and Doctorate. The conferment of a first degree now marks the satisfactory completion of a three or four years' Univ. course.

At Oxford and Cambridge the Faculty of Arts is not subdivided. B.A. is the "first degree," whether the course leading to it be literary or scientific. In Trinity College, Dublin, a B.Sc. course, including no classical language, was introduced in 1926, but it is expected that most Science students will continue to take the B.A., which remains the primary degree, and must be obtained before proceeding to any other degree except Mus.B., Mus.D., B.Sc. and Ph.D. At Cambridge there is no B.Sc. At Oxford the B.Litt, and B.Sc. are awarded for special study and research, like the M.Litt. and M.Sc. of Cambridge. At St. Andrews the B.Phil. or the B.Litt. may be taken either conjointly with, or after, the M.A.

At all other Univs. a course in Arts leads to the B.A. (in Scotland, M.A.), in Science to the B.Sc., in Commerce to the B.Com., and similarly to other titles in other departments of knowledge.

Each of the Faculties of Theology, Law, Medicine, and Music has its own bachelor's degree.

The signatures of the titles of degrees vary. In the following list the more usual signature is placed first:

Bachelor of Arts: B.A.; B.A. (Administration) Manchester; B.A. (Commerce) Manchester.

Bachelor of Science: B.Sc.

Bachelor of Science in its various applications: B.Sc. (Engineering), B.Eng. Liv., Sheff.; B.A.I. Dub.; B.Sc. (Metallurgy), B.Met. Sheff.; B.Sc. (Mining), B.Sc. (Mining Engineering) Glas.; B.Sc. Tech.; B.Sc. (Applied Chemistry); B.Sc. (Naval Architecture); B.Sc. (Veterinary Science), B.V.Sc. Liv.; B.Sc.Agr., B.Agr. Bris., Belf., Agr.B. Dub., B.Agr.Sc. N.U.I.; B.Sc. (Architecture) Glas.; B.Sc. (Forestry), Agr.B. (Forestry) Dub.; B.Sc. (Household and Social Sci.) London; B.Sc. (Estate Management); B.Sc. (Dairying) Reading; B.Sc. (Economics); B.Sc. (Commerce) London; B.Sc. (Horticulture) London and Reading; B.Sc. (Public Health), B.Hy. Durh.; B.Sc. (Pharmacy) Glas.; B.Sc. (Textile Technology) Belfast.

Bachelor of Commerce: B.Com. or B.Comm., B.Com.Sc. Belf.

Bachelor of Agricultural Science: B.Agr.Sc. N.U.I.

Bachelor of Architecture: B.Arch.

Bachelor of Dental Science: B.D.S., B.Ch.D. Leeds, B.Dent.Sc. Dub.

Bachelor of Education: Ed.B. (of the Scottish Univs., two years after a first degree).

Bachelor of Literature: B.Litt. (St. Andrews and Oxford).

Bachelor of Pharmacy: B.Pharm. (London, 3 yrs.' course). Bachelor of Philosophy: B.Phil. (St. Andrews).

Bachelor of Technology: B.Tech. (Wales).

In Theology the title of the first degree is B.D. In Law it is LL.B., B.C.L. Ox. Durh., B.L. or (open only to graduates in Arts) LL.B. the Scottish Univs. In Medicine the signature of the title is M.B., B.M. Ox.; in Surgery, Ch.B., B.Chir. Camb., B.Ch. Dub. Ox. Wales, Belf., B.S. Durh. Lond.; in Obstetrics, B.A.O. Belf. Dub. N.U.I. In Music, Mus.B., B.Mus. Birm. Durh. Ox. Wales.

The Primate's Degrees: Under powers conferred before the Reformation by the Pope, the Primate has the right to confer degrees. In recent years he has, on an average, conferred annually two doctorates.

### Honours Degrees

In all Univs. of the United Kingdom the first degree in Arts (or Science, if a separate faculty) may be obtained as an ordinary degree, or with Honours.

At Oxford the Honours Schools (B.A.) are in Literæ Humaniores, Mathematics, Natural Science (including Engineering), Jurisprudence, Modern History, Theology, Oriental Studies, English Language and Literature, Modern European Languages, and Philos., Politics and Economics.

At Cambridge (Triposes), in Anthropology, Classics, Economics, English, Geography, History, Law (B.A. and LL.B.), Mathematics, Mechanical Science, Modern and Mediæval Languages, Oriental Languages, Moral Science, Natural Science, Theology.

In Scotland: M.A. Hons. in Celtic, Classics, Econ. Science, English

(Aberdeen, Geography), History (St. Andrews, History and English), French, German, Italian, Spanish, or Celtic, Mathematics and Natural Philosophy, Mental Philosophy, Modern Languages (St. Andrews, Natural Science, Maths. and Physical Science, Philosophy), Sanskrit, Semitic Languages; B.Sc. Hons. in various branches of Science.

At Dublin (Moderatorships), in Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History and Political Science, Modern Literature, Legal and Political Science,

Engineering Science, Celtic Languages, Oriental Languages.

At London, B.A. Hons. in Classics, Latin, Greek, Mathematics, Anthropology, Archæology, English, French, German, Celtic, Italian, Spanish, Portuguese, Dutch, Scandinavian Langs., Russian, Polish, Czech and Slovak, Serbo-Croat and Slovene, Indo-Aryan, Arabic, Persian, Hebrew and Aramaic (including Syriac), Chinese, Philosophy, Psychology, History, Sociology, Geography; B.Sc. (Special), Mathematics, Astronomy, Physics, Chemistry, Geology, Botany, Zoology, Physiology, Human Anatomy and Morphology, Psychology, Anthropology, Statistics; B.Sc. (General)—three subjects; B.Sc. Hons. (Economics); B.Sc. Hons. (Engineering); B.Sc. Hons. (Mining); B.Sc. Hons. (Metallurgy); B.D. Hons.; LL.B. Hons.; M.B., B.S. Hons.: B.D.S. Hons.

In other Univs. Honours are obtainable in a variety of subjects.

### Recognition of Study at other Universities

UNDERGRADUATES. The Univs. of Bristol and Leeds accept attendance for I yr. at any Univ. requiring residence as a qualification for a degree. At London any person who has passed the external Intermediate examn. before registering as an Internal student may take the Final Examn. after a 2 yrs.' course and qualify for a degree in the subsequent year. At Oxford members of certain Affiliated Colleges of the United Kingdom, and of certain approved home, colonial, and Indian Univs., who have attended lectures for at least 2 yrs. and attained a prescribed standard, are allowed to count the first term kept by residence as the fourth. At Cambridge a similar privilege is allowed to certain classes of students. At Dublin, students who have spent 2 yrs. in Arts studies at certain Univs. and have passed the examns, belonging to that period are given credit for the first academic year. At Durham a similar concession is made to students of science. In the Scottish and certain other Univs, attendance at lectures and examns, passed in other Univs. may be recognized by the Board of Studies, or Senate, after consideration of each case. For Belfast regulations consult section.

GRADUATES. The remission to graduates of any other approved University of 2 yrs. of the 4 yrs.' course is made by the Univ. of Dublin, of 1 yr. of the 3 yrs.' course by Bristol, London, and Sheffield, and the N.U.I. Similar remissions are made by Oxford and Cambridge; see their respective sections. At Oxford, graduates of a home Univ. and others, who can satisfy the Education Committee that they have received a good

general education, are eligible to apply for admission to an approved course of special study and research for the degree of B.Litt. or B.Sc., and, if successful, may supplicate for the degree after completing 2 yrs. of residence. At Cambridge graduates suitably qualified are admitted as Research students and may, after the satisfactory completion of a 2 yrs.' course and the submission of a dissertation, obtain the degree of M.Litt. or M.Sc. At Dublin a graduate of any approved Univ. who possesses a degree the equivalent of Moderatorship may, after 1 yr. of advanced study and research, present himself for examn. for the degree of M.Sc. Certain Univs. which have not adopted ordinances to that intent are prepared to consider applications from graduates of other Univs. who desire to read for higher degrees for remission of standing or exemption from examinations.

### Higher Degrees

M.A. At Cambridge a Bachelor of Arts may, without further examn., proceed to the M.A. at the close of the 6th yr. after the end of his first term; at Oxford in the twenty-first term after matriculation; at Dublin 3 yrs. after passing the B.A. examn. At Durham and Sheffield graduates in Honours (Durham—1st or 2nd class) of 3 yrs. and I yr.'s standing respectively are admitted to the M.A. without examn.; other graduates must pass the M.A. examn. or (Sheffield) present a thesis. Other Univs. exact a further period of study from their own graduates, followed by the presentation of a thesis, or an examn. or both, of I yr. at Birmingham, Leeds, Belfast, and the N.U.I.; of I yr. from graduates with Honours, and 2 yrs. from others, at Bristol, Manchester, and Wales; of 2 years from all graduates at Liverpool, London, and Reading. Graduates of approved Univs. can obtain the Mastership after 1 yr. of advanced study and research at Birm. and the N.U.I.; after 2 yrs. at Bris., Leeds, Liv., Lond., Manc., Reading (thesis required), Sheff., Wales. At London a thesis is required from Internal students in all branches, except Mathematics, in which it is optional, and an examn. At Leeds, Liverpool, and Manchester persons who have not graduated can obtain the M.A. degree after a course of advanced study and research extending, usually, over 3 years.

M.Sc. This degree is not conferred by Oxford or any of the Scottish Univs. At other Univs. it can be obtained by graduates of the Univ. under conditions similar to those for the M.A. At Durham, by graduates, B.Sc., of 2 yrs.' (Sheffield 1 yr.'s) standing who took first or second class Honours, without further test. At Leeds, by graduates, B.Sc., with Honours, of 1 yr.'s standing (other Bachelors of any Faculty of 2 yrs.' standing), after research (thesis required). At Liverpool, by graduates, B.Sc., with Honours, after 1 yr.'s higher study (thesis required). At London, by Internal students of 1 yr.'s or 2 yrs.', by External students of 1 yr.'s standing from B.Sc. with thesis (optional in Mathematics) and examn. At Manchester, by graduates, B.Sc., of 1 yr.'s standing after thesis and examn. (at the discretion of the Faculty). At Cambridge the degree is conferred upon Research students. In other Univs. which confer the degree, graduates of approved Univs. can

obtain the M.Sc. on terms similar to those for the M.A.; at Durh. or Reading, after 2 yrs.' advanced study in the Univ.

Other titles of Mastership conferred by various Univs.—M.Litt., M.Com., LL.M., M.Mus., M.A.O. (Midwifery), M.Ch., Ch.M., M.Ch.Orth. (Orthopædic Surgery), M.D.S. (Dental Surgery), M.V.Sc., M.H. (Hygiene), M.Eng., M.Sc.Tech., M.Met., M.Arch., M.Ed.

Ph.D. All the Univs. of the United Kingdom now confer the degree of Philosophiæ Doctor. Candidates entering upon a course of advanced study and research for this degree must be at least 21 (Oxford, Camb., Brist., L'pool, Durh., Wales, Reading, St. Andrews, Dub.—no minimum age): must ordinarily be graduates either of the Univ. or of some other approved Univ.; must have pursued their studies at a Univ. or Univs. for a period of at least 3 yrs. (London—2, Reading and Dublin—not specified); must produce evidence of fitness for the proposed course of study and research. The course for the degree extends ordinarily over at least 2 years (Cambridge, Reading, Aberd., Glas., St. And. and N.U.I.—3 years). At its termination the student must submit a dissertation and may be required to qualify also by examn. The degree is granted in any faculty in which the Univ. is prepared to receive advanced students.

A candidate for the degree of Ph.D., as an External student of the Univ. of London, must have graduated in the Faculty of Theology, Arts, Music, Science, Engineering, or Economics in this University

not less than 2 academic yrs. previously.

Litt.D. and Sc.D. The Doctorate in Letters or in Science is conferred upon Masters of Arts or Science (Wales and Dublin, Bachelors or Masters) distinguished by their contributions to the advancement of learning or science. The claim to the degree must be based either upon a special thesis, as at London, or upon published works. certain Univs. the Faculty may require the applicant to appear for examn. An applicant for the Doctorate must be of 3 yrs.' standing from graduation at Dublin, Belf. (for D.Sc.), N.U.I. (for D.Sc. Pub. Health); 4 yrs.' at Manchester, London (for D.Sc. and External D.Lit.); 5 yrs.' at Birmingham, Sheffield, N.U.I. (for D.Litt., D.Litt. Celt., D.Sc.), and the Scottish Univs.; 6 yrs.' at Belfast (for D.Lit.), Durham (for D.Sc.), Leeds, Liverpool (5 yrs. from M.A. or, for D.Sc., from M.Sc. or Ph.D.), Bristol, Reading (4 yrs. from M.A. or M.Sc., 3 yrs. from Ph.D.); 5 yrs. from M.A., LL.M., M.Chir., M.Litt., M.Sc. or Ph.D., or 7 yrs. from M.B. at Cambridge; 7 yrs.' at Oxford, London (for Internal D.Lit.); 10 yrs.', Univ. of Wales (3 yrs. from M.A., 2 yrs. from Ph.D.), Durham (for Litt.D.).

Graduates or other Univs. who have been admitted to the degree of M.A. or M.Sc. (Oxford M.A., B.Sc., or B.Litt.; Dub. B.A.) can proceed to the Litt.D. or Sc.D. under the prescribed regulations. In Scotland Honours graduates of approved Univs. of 5 yrs.' standing, who have spent the equivalent (4 terms) of two winter sessions in research at a Scottish Univ., have submitted a satisfactory thesis or published work, and have, if required, passed an examn., are admitted to the Doctorate. At Bristol the degree of D.Sc. can be obtained

without previous admission to the M.Sc. At London a candidate for the Doctorate may be specially exempted from the examn. for M.A. or M.Sc.; at Manchester, from the examn. for M.Sc.

D.Hy. (Durh.) 2 yrs. from B.Hy.; examn., thesis.

### Degrees in Divinity

B.D. is conferred after examn. in the Scottish Univs. and the Univs. of Durham, London, Manchester, and Wales; after examn. and submission of a thesis at Dublin; after examn, and the submission of a dissertation and published works at Cambridge (examn, may be omitted) and at Oxford. At London the course must extend over 3 yrs., subsequent to matriculation. In Scotland a candidate must be M.A. of a Scottish Univ. who has taken a theological course in a specially recognized institution, or a graduate of an approved Univ. who has taken a complete theological course of at least 2 yrs. in the Univ. conferring the degree; at Dublin, a B.A. of 3 yrs.' standing; at Durham, he must be a man who is either a graduate of 2 yrs.' standing or the holder of the Diploma in Theology; in Wales, a graduate who, subsequent to graduation, has studied for 3 yrs. at one of the Associated Theol. Colls. of the Univ.; at Cambridge, a candidate must be M.A. or LL.M., and cannot be admitted to the degree until he is seven years from the Master's degree; at Oxtord, a candidate must be a M.A. or must be 26 yrs. of age, have followed a course of study in Christian Theology extending over 6 terms, and resided at the Univ. during 6 terms.

D.D. In Scotland the degree is conferred honoris causa tantum. At London it is conferred upon B.D.'s who took Honours in at least one subject, on presentation of a dissertation, followed by an examn., if the examiners so desire. At other Univs. it is conferred in consideration of published works, or a dissertation (and, at Oxford, a viva voce examn., if the judges so desire). The requisite standing is, at Cambridge and London, 5 yrs. from B.D. (or, for a Cambridge B.D., 12 yrs. from M.A.); Dublin, 8 yrs. from B.A.; Durham, 10 yrs. from B.A.; Manchester, 4 yrs. from B.D. (or 6 yrs. for B.D.'s of other Univs. who have studied for 2 yrs. at Manchester); Oxford, 14 yrs. from matricn., or, if he was admitted to the degree of B.D. as a graduate of another Univ., the candidate must have attained the age of 33; Wales, 6 yrs. from B.D.

### Degrees in Medicine and Surgery

M.B., Ch.B. The regulations for these degrees are practically uniform. Preliminary examinations satisfying the requirements of the General Medical Council (see Appendix XI.). Registration as a medical student by the G.M.C. is recommended. Satisfactory attendance during at least 5 yrs. at courses of study and hospital practice. Four examns. (in some Univs. grouped as three or two). All examns must be passed at the Univ. granting the degree, with the exception of the first, in Chemistry, Physics, and Biology (and, at St. Andrews,

the second in Anatomy and Physiology), from which a candidate may be exempted if he has passed an equivalent examn. at the Univ., or elsewhere (Scottish Univs., Birmingham, Bristol, Dublin for S. African students only, Durham, London, Oxford Senior Students, Sheffield). Study in the Univ. for at least 3 yrs., except for the degrees as an External student of the Univ. of London, who must study for 1 yr. in a Univ. of the United Kingdom; or for 2 yrs., Scottish Univs., Leeds, Liverpool, Manchester; for 1 yr. College of Medicine, Newcastle-on-Tyne (Durham). The Univs. of Oxford and Cambridge exact 3 yrs.' residence, but allow students to do any or all of their medical work at other recognized medical schools. At Oxford, Dublin, Univ. of Wales, candidates must graduate B.A. (or B.Sc., Wales) before admission to a medical degree.

- M.D. Candidates must be M.B., Ch.B. of, usually, 2 yrs.' standing (Oxford, 10 yrs. from matriculation; Cambridge, M.B. of 3 yrs.', or M.A. of 4 yrs.' standing; Leeds, Sheffi, M.B., 1 yr.'s standing; Belf., M.B. 3 yrs., B.A. or B.Sc. with M.B. 2 yrs.; Dublin, of M.A. standing). A dissertation is compulsory in almost all Univs., followed by an examn., unless the examiners pronounce the dissertation to be of such merit as to render further examn. unnecessary.
  - Ch.M. Regulations similar to those for M.D.
- D.Ch. (Durh.). Candidate must have devoted, subsequently to having obtained a registrable qualification, 3 yrs. (including one at least in the Univ. and 6 months at least abroad) to the study of Surgery and ancillary subjects.

Degrees in Dentistry, in Pharmacy (London, Manchester, Glasgow), and in Veterinary Science are obtainable under somewhat similar conditions.

### Degrees in Law

- LL.B. (or B.C.L.), obtainable with Honours or as an ordinary degree. In the Scottish Univs. candidates must have graduated M.A.; at Dublin, Durham (B.C.L. and LL.B.), National University of Ireland, B.A. For B.C.L. at Durham candidates must be of 2 yrs.' standing from B.A.; for LL.B. the course is 3 yrs. tor a candidate of Intermediate grade in Arts or Science. In Wales the course extends over 3 yrs. for a pass degree and 4 yrs. for an Honours degree. At Belfast graduates of this or of some other Univ. are eligible for the degree after a 2 yrs.' course in Law; at Oxford, after a 2 yrs.' course, if they obtain Honours in the B.C.L. examination. At Sheffield a graduate of a Univ. of the United Kingdom who has attended for 1 yr. the intermediate course and for 1 yr. the Final course in Law and for 2 yrs. studied in a recognized institution, may be a candidate for the degree. In the majority of Univs. there are two examns., Intermediate and Final. For B.L. v. Scottish Univs.
- LL.M. Cambridge, Leeds, Liverpool, London, Manchester, Sheffield, Wales. By standing for graduates in Law with Honours, except at

Leeds and Manc., where a dissertation must be presented. For others, after examn. or (Camb.) dissertation, or both (Wales). Liverpool requires 2 yrs. of approved study.

LL.D. (or D.C.L.). By the Scottish Univs. the Doctorate is awarded only honoris causa tantum. Other Univs., unless the degree be awarded honoris causa, require the submission of a thesis, dissertation, or published works, and may require attendance at an examn.; in Dublin a candidate may elect to undergo examn. in lieu of offering a thesis, etc. The requisite standing for the Doctorate is, at London, 2 yrs. from Honours LL.B.; Belf., 3 yrs. from LL.B. if thesis; Dublin, 3 yrs. from B.A. of Dub., Ox., or Camb.; Manchester, 4 yrs. from LL.B.; National Univ. of Ireland and Sheffield, 5 yrs. from LL.B.; Oxford (D.C.L.), 5 yrs. from B.C.L.; Cambridge, 8 yrs. from first degree; Liverpool, 5 yrs. from LL.M.; Leeds, 6 yrs. from LL.B.; Durham (D.C.L.) and Wales, 10 yrs. from graduation or 3 yrs. from LL.M.

### Degrees in Music

The degrees of Mus.B. (or B.Mus.) and Mus.D. (or D.Mus.) are conferred by the Univs. of Cambridge, Dublin, Durham, Edinburgh, London, Manchester, N.U.I., Oxford, Wales; B.Mus. and M.Mus. Birmingham; Mus.M. Cambridge and M.Mus. Wales.

Mus. B. At Birmingham, Cambridge, Dublin, Edinburgh, London, Manc., N.U.I., and Wales, students must pass the same Entrance examn. (Matriculation, Previous, or Preliminary) as students in Arts; with, at Birmingham, where the degree is an Honours degree, an examn. in theory and in execution. At Durham they are admitted on a testamur as Students of Music. At Oxford they must pass Responsions. In Wales a student must attend an intermediate class in Arts or Science in addition to the Music course. Residence is not obligatory at London, Dublin, or Durham. At Edinburgh students must study Music in the Univ. for one whole winter session. As a rule, the course extends over 3 yrs. with two, or three, examns., including an exercise for the Final examn.

Mus.M. Conferred 3 yrs. (Wales—2 yrs.) after the Mus.B. for original work and dissertation (Birmingham), after examn. and exercise (Cambridge, Wales).

Mus.D. Conferred at Cambridge on graduates not less than 30 yrs. of age, in recognition of distinction as Composer; in Wales (D.Mus.) on B.Mus. of 10 yrs.' or M.Mus. of 3 yrs.' standing on consideration o original compositions; at Edinburgh on Mus.B.'s of 3 yrs.' standing, after examn. as Composer, Executant, or Theorist or Historian (Dissertation), and also honoris causa tantum; at Dublin on Mus.B.'s after further examn. or practical test; at London on Mus.B.'s of 2 yrs.' standing, Oxford 3 yrs.', Manchester 4 yrs.', Durham and N.U.I. 5 yrs.', after exercise and examn.

# UNIVERSITY OF BIRMINGHAM

VISITOR-H.M. THE KING.

CHANCELLOR-THE VISCOUNT CECIL OF CHELWOOD, M.A., D.C.L., LL,D., K.C.

Pro-Chancellor - Sir Gilbert Barling, Bart., C.B., C.B.E., F.R.C.S.

DEPUTY-PRO-CHANCELLOR-JOHN HENRY LLOYD, M.A.

TREASURER-E. P. BEALE M.A.

VICE-CHANCELLOR AND PRINCIPAL—Sir CHARLES GRANT ROBERTSON. C.V.O., M.A. Oxford, LL.D. Edin.

VICE-PRINCIPAL—Prof. E. DE SELINCOURT, M.A., D.Litt., LL.D., F.B.A.

DEANS OF FACULTIES. See under "General Information," Faculties.

REGISTRAR-D. J. CAMERON, M.A. Ox. and Edin.

SECRETARY-C. G. BURTON, M.Com.

LIBRARIAN-W. BONSER, B.A., Ph.D. Lond.

SENIOR TUTOR TO WOMEN STUDENTS—JANE J. MILNE, M.A., D.Litt. DIRECTOR OF EXTRA-MURAL STUDIES—B. I. MACALPINE, M.A. Ox.

# PROFESSORS, LECTURERS, ETC.

Accounting and Administration

Cousins, D., B.Com., A.C.A. Reader

[Prof.

An atom yLockhart, R. D., M.B., Ch.M.

Payton, C. G., M.D., Ch.B. Lectr. in Regional Anat. and Sr. Demr.

Steane, G. M.B., Ch.B. Asst. Lectr. and Demr.

Lectrs. in App. Anat.:

M.B., Rose, Baron T., B.Sc., Ch.M., F.R.C.S.

Barnie-Adshead, W. E., B.Sc., M.B., Ch.B., F.R.C.S.

Maguire, C. C. W., M.D., M.R.C.P.

Demrs.:

Brenner, O., M.D., M.R.C.P. Donovan, H., M,B., Ch.B., F.R.C.S.

Stiles, W., M.A., Sc.D. Camb., Mason Prof. F.R.S. Leach, W., Ph.D., M.Sc. Manc.

Chesters, C. G. C., M.Sc., B.Sc. Lectr. Glas.

Isaac, W. E., Ph.D. Wales

Asst. Lectr. Malting and Brewing and other Industrial Fermentation Processes

Hopkins, R. H., D.Sc., A.I.C.

Adrian Brown Prof. Norris, F. W., B.Sc., Ph.D. Lond., Lectr. A.I.C.

Chemistry

Haworth, W. N., D.Sc. Manc., Ph.D. Gött., M.Sc., F.R.S. Mason Prof.

Carter, S. R., D.Sc., F.I.C. Sr. Lectr. in Physical C. Lectrs.:

ary Dept.).

Buchanan, Freda M., M.A. Edin. Ellis, S. J., B.Sc.

Wardlaw, W. D.Sc. Durh., F.I.C.

Poulton, Ethel M., M.Sc., D. ès

Sc. Geneva.

Design)

Lectr.

Lectr.

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Wood, C. E., M.Sc., A.I.C.	Simpson, Lilian E., B.A.
Nicholas, S. D., B.A. Ox., A.I.C.	Cull, E. C., B.Sc. Lond.
Cooper, E. Ashley, D.Sc. Lond.,	
Cooper, E. Ashiey, D.Sc. Lond.,	Stewart, Dorothy W., Mus.D. Edin.
A.R.C.S., F.I.C.	(also Lectr. in Music)
Pinkard, F. W., M.Sc. Wales., A.I.C.	Haddelsey, Muriel E., Bergman
Wiret E I D Se MA Dh D	
Hirst, E. L., D.Sc., M.A., Ph.D.	Osterberg Phy. Tg. Coll.
St. And.	James, B. C. L., M.A. Ox.
Hickinbottom, W. J., D.Sc., Ph.D.,	Sturt, Mary, M.A. Ox.
A.I.C.	Tait, Elizabeth W., M.A. Edin.
Cox, E. Gordon, B.Sc. Bristol	Fisk, Ethel, B.A. Camb.
Asst. Lectr.	Thorburn, A., M.A. Edin.
Porter, C. R. Ph.D. Lond.	Asst. Lectrs.:
Asst. Lectr.	Bayley, Christabel.
Classics	
	Weitzman, Sophia, M.A., Ph.D.
Thomson, J. Oliver, O.B.E., M.A.	Manc.
Aberd., B.A. Camb.	MacFarlane, Miss M., M.A. Ox.
Prof. (Latin).	Medical Officers:
Dodds, E. R., B.A. Ox., M.A.	Jordan, W. R., M.D.
Prof. (Greek).	
Hirst, Margaret E., M.A. Camb.	Braid, Frances, M.D.
	Engineering, Civil
Lectr.	
Austin, R. P., B.A. Lond. Lectr.	Batho, C., M.Sc., B.Eng. Liv., D.Sc.
MacNeice, F. L., B.A. Ox.	McGill Beale Prof.
	Panton, R. C., M.Sc., M.A., B.A.I.
Asst. Lectr.	
Commerce, v. also Acc., Fin.	Dub. Lectr. (Part-time).
Florence, P. Sargant, M.Com.,	Veal, T. H. P., B.Sc. Brist. Lectr.
	Coultas, H. W., B.Sc. Leeds,
M.A. Camb., Ph.D. Columb.	M.Sc. Lectr.
Prof.	
Commercial Law   Prof.	Bateman, E. H., M.A. Camb.,
	B.Sc.Eng. Lond. Lectr.
Goitein, H., M.Com. Lond., LL.D.	Haywood, W., F.R.I.B.A. (Town
De di terre de l'efer	
Dentistry, v. infra	Planning) Lectr.
Education	Engineering, Electrical
	Cramp, W., D.Sc. Manc., M.Sc.
Valentine, C. W., M.A., M.A.	Tech., M.I.E.E. Prof.
Camb., D.Phil. St. And.	
(supervisor of Students in	Lectrs.;
	Kipps, E. J., M.Sc., M.I.E.E.
Psychol. in Fac. of Sc.) Prof.	Sims, L. G. A., Ph.D., M.Sc.
Heads of Training Depts.:	Marchan N. M. D.C. (Mining
	McElwee, N. M., B.Sc. (Mining
Braddock, A. P., M.A., B.Sc.	Elec. Eng.) Lectr.
Lond.	Havekin, T., B.Sc. Manc.
Hammond, Marjorie, M.A. Camb.,	Asst. Lectr.
B.A. Dub.	Engineering, Mechanical
Lectrs.:	Lees, S., M.A. Camb. Chance Prof.
Chapman, A. E., M.A. Camb.	Porter, R. C., M.Sc. Vict. Lectr.
	Boden, F. H., B.Sc. (Machine
Austin, Frances M., M.Sc. (Second-	Decign Tectr

Raw, F., D.Sc. Lond., F.G.S. Sandifer, D. A. N., M.Sc. Eng. Lectr. (Machine Design) Lectr. Wills, L. J., Ph.D., Sc.D., M.A. ΓProf. English Camb., F.G.S. Lectr. De Selincourt, E., M.A., D.Litt. Shotton, F. W., M.A. Camb. Ox., LL.D. Edin., F.B.A. Lectr. Hughes, A. M. D., M.A. Ox. German Reader. Sandbach, F. E., M.A. Camb., Maitland-Smith, Isabella J., M.A. Prof. Ph.D. Strass. Aberd., B.A. Ox. Lectr. Strachan, L. R. M., M.A. Ox. Lectr. Milner-Barry, Alda, M.A. Camb. Liddell, M. F., Ph.D., M.A. Edin. Lectr. Lectr. Buchanan, Freda M., M.A. Edin. Lectr. History, v. also Educn. Waterhouse, J. F., B.A. Ox. Beazley, Sir Raymond, D. Litt.Ox., Prof. Lectr. M.A., J.P. Hawgood, J. A., M.A. Lond., Ph.D. Dodds, Mrs. A. E., M.A. Ox. Pt.-time Lectr. Heid. (Med. and Mod. Hist.) Reader [Mitsui Prof. Finance Smith, J. G., M.Com., M.A. Dub. Lectrs.: Court, W. H. B., B.A. Camb., Sutcliffe, Dorothy, M.A. Manc. M.A. Harv. and Leeds. Lectr. in Econ. Hist. Camb. Adams, H. P., M.A.Walker, G. J., B.A. Ox. (Ancient H.). Asst. Lectr. in Econ. James, B. C. L., M.A. Ox. French Weitzman, Sophia, M.A., Ph.D. Ritchie, R. L. Graeme, M.A., Manc. Asst. Lectr. D.Litt. Aberd., D. de l'U. Harris, Mary D. Prof. Paris, O.A. (Local Hist.) Spec. Lectr. Milne, Jane J., M.A. Edin., D.Litt. International History Lectr. Stephens, J. S., M.A. Camb. Lectr. Bisson, L. A., M.A. Ox. Merttens Lectr. Tait, Elizabeth W., M.A. Edin. [Serena Prof. ItalianLectr. Richardson, Linetta de C., M.A. Asst. Lectrs.: Walton, T., M.A. Manc., L. ès L., D. de l'U. Paris. Smalley-Baker, C. E., M.A. Ox., Frechet, René, L. ès L. Paris. LL.B. Harvard Barber Prof. Asst. in Colloq. French. Readers: Geography, v. also Educn. Hargreaves, A. D., M.A., LL.B. Kinvig, R. H., M.A. Liv. Reader. Camb. Lectrs.: Verschoyle, R. P., B.A., B.C.L. Fisk, Ethel, B.A. Camb. Ox.Pelham, R. A., B.A. Wales. Coley, A. H., LL.D. McPherson, A. W., B.Sc. Glas. Hon. Reader in Legal Ethics. Asst. Lectr. Camm, W. C. Lectr. Dickson, A. W., LL.B., LL.B. Geology and Mineralogy Boulton, W. S., D.Sc. Wales, Lond. Lectr. Norris, C. S., B.A. Ox. M.Sc., A.R.C.S., M.I.Min.E., F.G.S. Prof. Lectr. in Trust Accounts.

Mathematics Lectrs.: Watson, G. N., Sc.D. Camb., Bowen, A. R., M.Sc., Ph.D., A.I.C. D.Sc. Lond., M.Sc., F.R.S., Clark, L. W. Woodhouse, B.Sc. F.I.P. Mason Prof. Vict. Lectrs.: Mason, J., M.Sc., D.Phil. T., Preece, C. M.A. Hon. Research Invest. Camb., F.R.A.S. Philosophy, Mental and Moral Colomb. Ruby, M.A. Lond., Russell, L. J., M.A., B.Sc., D.Phil. F.R.A.S. Glas. Calderwood, Nora I., Ph.D., M.A., Gibson, A. B., M.A. Ox. Lectr. B.Sc., Edin. Physics Lumsden, T. A., M.A., B.Sc. Edin., .Smith, S. W. J., M.Sc., M.A. F.R.A.S. Camb., D.Sc. Lond., A.R.C.S., Medicine, v. infra F.I.P., F.R.S. Poynting Prof. Lectrs.: Metallurgy [Feeney Prof. Hanson, D., M.Sc., D.Sc. Liv. Shakespear, G. A., D.Sc., M.A. Camb., B.A., B.Sc. Lond. (Spl. Harris, H., M.Sc., F.C.S. Lectr. Lectr. in Expl. P.). Allen, N., M.Met. Lectr. Barlow, G., D.Sc. Birm., Wales, Jones, J. W., M.Sc. Lectr. and Lond., F.Inst.P. Mining, Coal, and Metal Ibbs, T. L., Ph.D., M.Sc. Moss, K. N., O.B.E., M.I.Min.E., F.G.S. M.Sc.. Young, J., B.Sc. Lond., A.R.C.S. Prof. Dee, A. A., B.Sc. Lond., D.I.C., Varvill, W. W., B.Sc. Durh., A.R.C.S. M.I.M.M., M.I.M.E. Johnson, M. C., M.A. Camb., D.Sc. Lectr. in Metal M. Harrison, G. E., Ph.D. Asst. Lectr. Garrett, J. G., B.Sc., M.I.Min.E. Physiology Lectr. in Surveying. Daly, I. de Burgh, M.A., M.D., Hancock, W., Ph.D., M.Sc., F.G.S., B.Ch. Prof. M.I.M.E. Thorpe, W. V., M.A., Ph.D. Lectr. in Mine Rescue. Lectr. in Biochemistry. Needham, L. W., M.Sc. Macgregor, R. G., B.A., B.M., Lectr. in Coal Treatment. Ch.B. Lectr. Berry, J. L., M.B., Ch.B. Lectr. Mining Research Laboratory Peat, S., Ph.D., B.Sc. Haldane, J. S., C.H., LL.D., M.D., Lectr. in Biochemistry. F.R.S., Hon. Prot. and Dir. Walker, Hilda, M.B., Ch B. of Research Lab. Special Lectr. Graham, J. I., M.A. Camb., M.Sc. Psychology, v. Educn. Lond., A.R.C.Sc.I., A.I.C. Asst. Dir. of Research. Prof. Russian Konovalov, S., M.A., B.Litt. Ox. Music, v. also Educn. Bantock, Sir G., M.A., Mus.D. Spanish Conroy, R., M.A. N.U.I. Lectr. R. Peyton Prof. Parker, Adelaide, B.A. Liv. Stewart, Dorothy W., Mus.D. Edin. Asst. Lectr. Lectr. Zoology and Comp. Anatomy Oil Engineering and Refining Fox, H. Munro, M.Sc., M.A. Camb. Nash, A. W., M.Sc., F.C.S., Mason Prof. M.I.Mech.E., M.I.P.T. Prof.

Newth, H. G., M.Sc., A.R.C.S., D.I.C., F.Z.S. Lectr. Gunn, D. L., B.Sc. Wales. Lectr. Stephenson, E. Mary, M.Sc. Lond. Asst. Lectr.

#### \* Medicine

(for subjects of first 2 yrs.—Anat., etc., v. supra).

Dean:—A. Stanley Barnes, D.Sc., M.D., F.R.C.P.

Bacteriology, v. Path.

Ear, Nose and Throat, Diseases of Woodman, E. M., M.S., F.R.C.S. Lectr.

Forensic M. & Toxicology

Morrison, J. T. J., M.Sc., M.A., M.B., B.Chir. Camb., F.R C.S. Prof.

Walker, C., M.D., B.Sc. Asst.

Hygiene and Public Health, v.
also Chem.

Robertson, Sir John, C.M.G., O.B.E., M.D., LL.D. Edin., B.Sc. Prof.

Lewis, C. J., M.D., D.Sc., F.R.C.P.E. Assoc. Prof. Auden, G. A., M.D., M.A., Ph.D.,

D.P.H. Camb., F.R.C.P. (Hygiene) Lectr.

Infant Hygiene and Dis. of Children [Prof.

Parsons, L. G., M.D. Lond., F.R.C.P. (also Clin. Lectr.)

Materia Medica [Lectr. Kneale, J. C., M.B., Ch.B., M.P.S. Greenwood, F. R., M.D., B.S. Lond., M.R.C.S. Demr. Medicine

Wynn, W. H., M.D., M.Sc. Lond., F.R.C.P. Prof. Emanuel, J. G., M.D., F.R.C.P.

Prof. Thomson, A. P., M.C., M.D., F.R.C.P.

Asst. to Prof. and Lectr. for Dental Students.

Bulmer, E., M.D., M.R.C.P. Lect. for Dental Students

Mental Diseases

Hughes, P. T., M.B., Ch.M. Edin., D.P.H. Lond. Lectr. Joint Board of Research (Univ.

and City):
Pickworth, A. F., B.Sc., M.B.,
B.S., A.I.C. Director.

Midwifery and Dis. of Women Whitehouse, H. Beckwith, M.S. Lond., Ch.M., F.R.C.S. Prof.

Graham, Lewis, M.S. Lond., F.R.C.S. Lectr.

Lloyd, Hilda N., B.Sc., M.B., Ch.B., F.R.C.S. Asst.

Ophthalmology

Evans, J. J., M.D., F.R.C.S. Lectr.

Pathology and Bacteriology Wilson, G. H., M.D. Glas.

Prof. of Path. Lamb, F. W. M., M.D., Ch.B., M.R.C.S. Lectr. in P. Lewis, C. J., M.D., D.Sc. Edin.,

F.R.C.P.E.

Lectr. in Advanced B. Shrewsbury, J. F. D., M.B., Ch.B., D.P.H. Lectr. in B. Bulmer, E., M.D., M.R.C.P. Asst. Neale, A. V., M.D., M.R.C.P. Asst. Stammers, A. F., L.D.S.

Demr. for Dental Students.

Pharmacology, v. Therapeutics

Radiology [Lectr. Black, Harold, M.D., M.R.C.P.

Surgery

Barling, S. G., C.M.G., M.S., F.R.C.S. Prof. Raison, C.A., M.B., Ch.B., F.R.C.S.

(S. for Dental Students)
Lectr.

Sampson, H. H., M.B., Ch.B., F.R.C.S. Asst. to Prof.

<sup>\*</sup> Exclusive of 40 clinical lecturers and tutors on the staffs of hospitals.

Surgery, Operative
Barnes, F., M.S., F.R.C.S. Lectr.
Surgery, Ophthalmic
Rudd., C., M.B., Ch.B., F.R.C.P.
and S. Glas. Clin. Teacher

and S. Glas. Clin. Teacher Surgery, Orthopædic [Lectr. Dunn, N., M.A., M.B., Ch.B.

Therapeutics, Pharmacology and Wilkinson, K. D., O.B.E., M.D., F.R.C.P. Prof.

Smellie, J. M., M.D. Edin., M.R.C.P. Lectr.

### Dentistry

v. also Med., Path., Surg.

Matthews, G. F. C., B.D.S., L.D.S. Lectr. (Orthod.).

Humphreys, H. F., M.B., Ch.B., M.D.S., L.D.S.

Lectr. (D. Anat. and Physiol.). Wellings, A. W., M.D.S., L.D.S. Lectr. (D. Histol., etc.). Knott, W. M., L.D.S.

Lectr. (D. Mechs. and Prosthetics).

Madin, W. T., B.D.S., L.D.S.

Lectr. (D. Surgery, etc.). Broderick, R. A., D.S.O., Ch.B., M.B., M.D.S., L.D.S.

Lectr. (D. Bacteriology).

Parrott, A. H., O.B.E., M.D.S., L.D.S.

Lectr. (D. Mat. Med. and Therap.).

21 Clinical lecturers and tutors on the staff of the Dental Hospital.

### Huxley Lecturer

1932—C. C. Paterson, O.B.E., MI.E.E.

### University Extension

Tutors: Macalpine, B. I.; Studd, E. J. (Jt.-Secs.), and 12 others.

### AFFILIATED INSTITUTIONS

MIDLAND INSTITUTE. Students are admitted to Intermediate Arts examn. as Internal students.

Saltley Training College. Students taking the 4-yr. course are admitted to the Intermediate Arts examn. as Internal students. *Principal*—Rev. F. T. Cooper, M.A. Camb.

HANDSWORTH AND LICHFIELD THEOLOGICAL COLLEGES. Students can take the 2nd and 3rd yrs. for the B.A. partly in their own Colls. *Principals*—Handsworth: Rev. W. F. Lofthouse, D.D.; Lichfield: Rev. E. H. Ward, M.A.

### GENERAL INFORMATION

The University, formerly the Mason College founded by Sir Josiah Mason in 1880, was incorporated by Royal Charter in 1900. The Charter prescribes instruction in all branches of a liberal education, and such instruction especially as may be of service in the manufactures, commerce, and industrial pursuits of the Midlands. The Faculties of Arts, Medicine, and Law are still housed in the buildings of Mason College in the centre of the city. Other buildings have been erected and equipped at a cost of £850,000 at Edgbaston on a site of 100 acres.

FACULTIES: Science, Arts, Medicine, Commerce, Law. Deans: Prof. S. W. J. Smith, Prof. Ritchie, Dr. Stanley Barnes, Prof. J. G. Smith, Prof. Smalley-Baker.

Departments of Education (training for teaching in primary, secondary, and continuation schools); Malting and Brewing and other Industrial Fermentation Processes; Social Study; Industrial Certificates. Connected with the Medical Faculty is a School of Dentistry.

LIBRARY, about 150,000 vols. Special Collections: Sargant, rich in French economic literature of about 1830-1860; Collings, some 350 books on agric. and land problems; Bunce, rich in nineteenth-century biography; Corbett, county, especially Shropshire, history. Museums, Anat., Dent., Geol., Zool.

LABORATORIES: Chemical (special organic, phys., electro-chem., analytical, and public health depts.); Engin., Metallurgy, and Mining (exceptionally well equipped and including coal-mining research lab., expl. coal-mine and oil-boring plant, petroleum engineering being a speciality); Brewing; Powerstation supplying whole Univ. with lighting, heat, and power; Physiol.; Pathol.; Cancer Research, Research in Mental Disease; Bacteriol. A small Observatory is attached to the dept. of Physics. Hospitals (600 beds) available for clinics—General, Queen's, and many special.

Matriculation. See Appendix XX.

Degrees. B.A., B.Mus., M.A., M.Mus., D.Litt.; B.Sc. (in Pure Science, in Engineering—Mech., Civ., Elec., Hydro-Elec.; in Oil Engin. and Refining; in Metallurgy, or in Mining—Coal and Metall), M.Sc., D.Sc.; M.B., Ch.B., B.Sc. (Pub. Health), B.D.S., M.D., Ch.M., M.D.S.; B.Com., M.Com.; LL.B., LL.M., LL.D.; Ph.D. (in any Faculty).

No degree can be obtained without attendance upon prescribed courses in the Univ. extending over at least 3 academic yrs. after matricn. except in the case of graduates of other approved Univs., who are, under certain conditions, admitted to the 1 yr.'s courses for the M.A. and M.Sc. and to 2 yrs.' courses for the B.Sc. (courses in technical subjects), B.Com., Ph.D. (v. p. 17), M.D., or Ch.M.

B.A. Honours schools in Classics, Engl. Lit., French, German, Italian, Spanish, Hist., Social and Polit. Sc., Philos., Maths., Music, Geography, Economics.

In the B.Com. courses one-third of the student's time may, if he chooses, be devoted to work in Applied Science. There is a 4 yrs.' B.Com. course for students entering at Inter. B.Sc. standard. They "qualify" for the ordinary B.Sc. at the end of 2 yrs., subsequently completing 2 yrs. in the Fac. of Com. There is also a 3 yrs.' joint course in Mining and Commerce leading to the B.Com. for those who wish to enter the commercial side of the Mining industry.

The B.Sc. with Honours requires 3 yrs. after the Intermediate standard has been reached. B.Sc. Hons. schools in all subjects in the Fac. The B.Sc. courses in Engin. and Hons. Courses in Oil Engin. and Refining, in Mining, and in Metallurgy cover 4 yrs. Those in Mining involve practical work underground. Graduates of Oxford who have obtained the Ox. Dipl. in Scientific Engin. and Mining are eligible, subject to certain provisos, for the B.Sc. in Engin., Mining, or Metall. after 2 yrs.' study in Birmingham.

Special course in Spanish for students of applied science; 2 lecture hours a week for 2 sessions.

Med. students may spend their final yr. at any school or schools of Med. recognized by the Univ., and the Senate may recognize examns. passed therein as exempting from the 1st Med. examn. They may obtain the B.Sc. as well as their Med. degree by devoting 7 yrs. instead of 6 to study in the Univ.

Candidates for the B.Mus. (Honours) must have passed the matricn. or an equivalent examn. and an examn. in the Rudiments of Music, and power of performance on some musical instrument.

The M.A., M.Com., and M.Sc. involve at least 1 yr. of study after completing the course for the bachelorship.

The M.A. may be taken in Educn. as well as in the ordinary Arts subjects.

The D.Litt., M.Mus., D.Sc., or LL.D. may be taken 3 yrs. after the M.A., B.Mus., M.Sc., or LL.M.

Advanced Standing. Candidates who, before admission, pass certain examns. of other approved Univs. and Examining Bodies may be permitted to take the final examn. for the B.Sc. at the end of their 2nd yr., and to work for the M.Sc. in their 3rd yr.

Diplomas. Art Instructor's (2 yrs.' course), for students of the Municipal School of Art; Brewing (3 yrs.' course; Post-graduation r yr.); Graduates' Commerce (1 yr.'s course), open to graduates of any Univ. who have passed an adequate test in accounting; Mining; Oil Engin. and Refining; Social Study (2 yrs.' or, Higher Dipl., 3 yrs.' course preparatory for public administration, charity organization, factory welfare, trade union official work, etc.); Diploma in Education (1 yr.'s course), for graduates of a Univ. of the U.K. or others equally qualified; Dental Surgery (5 yrs.); Public Health (1 yr.'s course), not less than 2 yrs. after obtaining registrable qualification in Med., Surg., and Midw.

A Joint Coal-mining Diploma of the Univs. of Oxford and Birmingham may be taken by Oxford graduates in Engineering who, after 4 months' practical experience in coal-mining, pursue courses covering one session in this Univ. Tuition fee, £60. A similar Joint Diploma of Camb. and Birm. is given.

Certificates for Brewers and Maltsters (2 yrs.).

An Industrial Certificate class has been instituted under the control of a joint board of Univ. and Trade Union representatives. This class provides two full days' instruction to members of Trade Unions, nominated by their Unions, in English Literature, Modern History, Economics, and Elementary Science. The class is held in all three terms of the Univ. session, and at the end an Industrial certificate is awarded after examn. The class is a new departure, as it is not based on the principle of evening work but on full-time day work, and the instruction is provided by members of the Univ. Staff. Evening classes are not provided by the Univ., this work being left to the Birm. and Midland Inst., Birmingham Commercial Coll., etc.

RESEARCH. A joint standing committee of members of council and members of senate co-ordinates research work in all faculties, formulates policies of research, obtains funds, and co-operates with Gov. agencies and external bodies. Trust Funds amount to £10,000. There are special committees for research in Mental Diseases and in Cancer.

FEES. Matricn., £2. Tuition for B.A., £75; B.Sc., £75-£96; Engin., £190; Mining, £190; Metall., £190; Med., including Hospl. fees, £170; LL.B., £29. Examns., Interm. and Final, for first degree, £10, except in Med., £20, and Engin., £12: 10s. Laboratory research fees average about £20.

POSTGRADUATE AND RESEARCH SCHOLARSHIPS. 14 in Sci.; 11 in Arts; 2 in Com.; 1 in Law; also a Travelling Studentship (£300 for 1 yr.) biennially for research in Path. or Clin. Med.; 1 postgrad. scholarship (£90) every 3rd yr. in Facs. of Med., Com., Law. Some of these are open to graduates of other Univs., but preference is always given to Birmingham graduates. For Research Studentships in Oil Eng., etc., v. App. XXIII. 18.

RESIDENCE. For women there is a Hall of Residence—Univ. House, Edgbaston Park Rd. (Warden), with grounds of 2\frac{1}{4} acres. For men—Chancellor's Hall (Warden), Augustus Road, Edgbaston (96 students); Queen's College (Principal), Somerset Road, Edgbaston (80 students). The cost of board and lodging is from \( \xi\_2 : 2s. \) upwards a week.

An Appointments Board (Secy.—The Registrar) has been established.

Guild of Graduates. Six representatives serve on the Univ. Court of Governors, one of whom is also a member of the Univ. Council. A Register of Graduates and a News Letter are circulated annually to all members.

UNIVERSITY EXTENSION work includes Lectures and Tutorial Classes in the city of Birmingham and the Midland area. The Tutorial Classes are under the control of a Jt. Committee of the Univ. and the W.E.A.

Publications. *Cylendar* (Oct.), 2s.; Faculty and Departmental syllabuses (April); *Careers* in Science; *Report of University Research Committee*, including a bibliography of the research work published during the session (Feb.); students' magazine, the *Mermaid*.

### THE YEAR 1930-31

Benefactions and Gifts. The late Hugh Morton, £20,000; £5000 for Scholarships and one-half of residue of estate (value not yet ascertained); grant from Miners' Welfare Fund towards reconstruction of the Mining Dept.; and numerous small gifts under £500; and of apparatus, etc., from Industrial firms.

New Buildings. The new Students' Union, costing about £50,000, was completed and opened by the donor, Sir Charles Hyde, Bart., Hon. LL.D., on October 13, 1930, on the occasion of the Jubilee Celebrations of the University, October 11-13.

New Hospital and Medical School. The Appeal Fund was launched on April 9, 1930, and by October 1931 £620,000 subscribed or promised. The Executive Board for the Centre, of which the Vice-Chancellor is the Chairman, is carrying out the plans, and Mr. H. C. Lea, M.I.M.E., has been appointed Consulting-Engineer to co-operate with the architects and the public authorities of the City for the preliminary work and the design of the roads, power-station, etc. Building sub-committees have also been appointed.

EXTRA-MURAL WORK. Two new Staff Tutors have been appointed, the Library and lecture arrangements have been revised and extended.

RETIREMENTS. Profs. Ling (Brewing), Martineau (Accounting), Burstall (Engineering), Gamgee (Surgery).

STUDENTS. Full-time: total, 1446, including 157 graduates. Part-time: total, 184, including 43 graduates.

DEGREES. B.A., 82; B.Sc., 96; M.B., Ch.B., 16; B.Com., 20; LL.B., 8; M.A., 21; M.Sc., 11; M.Com., 2; LL.M., 2; Ph.D., 14; D.Sc., 2; M.D., 4; Ch.M., 1; B.Mus., 1.

## UNIVERSITY OF BRISTOL

VISITOR-H.M. THE KING.

CHANCELLOR—The Rt. Hon. WINSTON S. CHURCHILL, C.H., M.P., LL.D. (ex officio President of Court, Council, and Convocation).

Pro-Chancellors—The Rt. Hon. Henry Hobhouse, M.A., LL.D.; The Rt. Rev. the Lord Bishop of Bristol, D.D., LL.D.; Stanley H. Badock, LL.D.; Hiatt C. Baker, LL.D.

VICE-CHANCELLOR-THOMAS LOVEDAY, M.A. Ox., LL.D.

Pro-Vice-Chancellor-Prof. J. F. Dobson, M.A.

TREASURER-STANLEY H. BADOCK, LL.D.

DEANS OF FACULTIES. See under "General Information"—Faculties.

LIBRARIAN-W. L. COOPER, M.A. Ox.

HON. MEDICAL LIBRARIAN—GEORGE PARKER, M.A., M.D.

TUTOR TO THE WOMEN STUDENTS AND WARDEN OF THE UNIV. HALL OF RESIDENCE FOR WOMEN—MAY C. STAVELEY, M.A.

DIRECTOR OF SCHOOL CERTIFICATES-Prof. F. F. Boillot, M.A.

DIRECTOR OF EXTRA-MURAL STUDIES—J. H. NICHOLSON, M.A.

REGISTRAR-....

CHIEF ACCOUNTANT-I. Fox.

SECRETARY AND ACTING REGISTRAR—WINIFRED SHAPLAND.

### ASSOCIATED INSTITUTIONS

(In which specialized teaching is given or facilities for research are afforded.)

ROYAL AGRICULTURAL COLLEGE, CIRENCESTER, founded 1845 and associated with the Univ. from 1910, was closed during the war, but was reopened in 1923. *Principal*—R. Boutflour, M.Sc.

NATIONAL FRUIT AND CIDER INSTITUTE, LONG ASHTON (v. infra, LABORATORIES). Director—Prof. B. T. P. Barker, M.A.

REDLAND HIGH SCHOOL, COLSTON'S GIRLS' SCHOOL, and CLIFTON HIGH SCHOOL, BRISTOL, for kindergarten training.

GLOUCESTERSHIRE TRAINING COLLEGE OF DOMESTIC SCIENCE, for practical course for B.Sc. in Dom. Sc.

THE NATIONAL TRAINING SCHOOL OF COOKERY AND OTHER BRANCHES OF DOMESTIC ECONOMY, 72-78 BUCKINGHAM PALACE ROAD, LONDON, for practical course for B.Sc. in Dom. Sc.

Theological-

BRISTOL BAPTIST COLLEGE. *Principal*—Rev. A. Dakin, B.D. Lond., D.Th. Heid.

WESTERN COLLEGE, BRISTOL. Principal—R. S. Franks, M.A., D.Litt., LL.D.

Theological College, Salisbury. *Principal*—Rev. C. T. Dimont, M.A., D.D.

St. Boniface Missionary College, Warminster. Principal—Rev. E. Courtenay West, M.A.

### PROFESSORS, LECTURERS, ETC.

Agriculture Barker, B. T. P., M.A. Camb. (A. Biology) Prof. Boutflour, R., M.Sc. Durh. Reader. Wallace, T., M.Sc. Durh., A.I.C. (A. Chem.) Grove, O. (Œnology), M.Sc. Lectr. Walton, C. L., M.Sc., Ph.D. Wales (Entomology) Lectr. Spinks, G. T., M.A. Camb. (A. Botany) Lectr. Tutin, F. (Bio-Chem.), M.Sc. ,, Swarbrick, T., M.Sc., Ph.D. Leeds (Pomology) Lectr. Hutchinson, H. P., B.Sc. Lond. (Willow-growing) Lectr. Dawe, C. V., M.Com. Leeds (A. Economics) Lectr. Ogilvie, L., M.A. Aberd., M.Sc. Camb. (Mycology) Lectr. Marsh, R. W., B.A. Camb. (Mycology) Lectr. Ling, A. W., M.Sc., N.D.A. (A. Chem.) Lectr. Menzies, W. D., M.R.C.V.S. (Vet. Science) Lectr. Hirst, F., M.Sc., A.R.C.S. (Micro-Biology). Lectr. Adam, W. B., M.A. Cantab. (Agric. Chemistry) Lectr. Asst. Lectrs.: Adams, Miss M. (Food Preservation). Miles, C. S., B.Sc. Reading (Dairy Bacteriology). Charley, V. L. S., B.Sc. (Bio-Chem.). Jones, J. O., M.Sc. Wales (Soil Analysis). Hinton, J. C., B.Sc., Ph.D. Leeds (Plant Physiology).

Smyth, Elsie S., B.Sc., Ph.D. (Plant Physiol.). Blundell, J. E., M.Com. Birm. (Agric. Econ.) Demr. Pickford, P. T. H., Dip.Hort. (Œnology) Demr. Lewis, F. C., B.Sc. (A. Chem.) Research Asst. Osmond, D. A., M.Sc. (Soil Sur-Research Asst. vey) Brown, P. S. (R.).Duncan, A. C., F.R.C.V.S. (Vet. Sci.) (R.)Le Sueur, A. D. C., F.S.I. Dip. For. (Forestry) (R.) Redington, G., D.Sc. Aberd. (A. Sci.) (R.)Thomas, J. F. H., B.Sc. Lond. (R.). Tyhurst, P. E. (Est. Management) (R.) Wells, H. E. (R.). Anatomy Fawcett, E., M.D., C.M. Edin., F.R.S. Prof. Moore, C. A., M.S., M.B. Lond., Ch.M., F.R.C.S. (Surg. and Applied Anat.) Lectr. Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. Llewelyn, Miss G. R., M.Sc. Demr.

An thropology

F.R.C.S.

Lectr.

Adams, A. W., M.B., M.S. Lond.,

Perry, C. B., M.D., Ch.B., M.R.C.P.

Demr.

Demr.

Aramaic, etc., v. Orient.

Art
Casson, Stanley (S.).

Bio-Chemistry, v. also Agric. Nierenstein, M., Ph.D. Berne, D.Sc. Gén. Reader.  Botany, v. also Agric. Darbishire, O. V., B.A. Ox., Ph.D. Kiel Melville Wills Prof. Skene, MacG., D.Sc. Aberd. Reader. Bracher, Miss R., M.Sc., Ph.D. Lectr. Cook, W. R. I., Ph.D. Asst. Lectr. White, J. W., M.Sc. (Systematic B.) (S.). Gardiner, G. F., F.R.H.S. (Gardening) (R.). Chemistry, v. also Agric. Francis, F., D.Sc. Manc., Ph.D. Erl., F.I.C. A. C. Pass Prof. Travers, M. W., D.Sc. Lond., F.R.S. Research Fellow in Applied Physical Chemistry and Hon. Prof. Davis, O. C. M., D.Sc. Lond., D.Sc., M.D., Ch.B. (also Lectr. in Med. to Dental Students and in For. Med. and Toxicol.)* Lectr. Rixon, F. W., M.Sc. Manc., Ph.D. Gies., M.A., F.I.C. Lectr. Taylor, Millicent, D.Sc., F.I.C. Lectr. Menzies, R. C., Ph.D. St. And., F.I.C. Malkin, T., B.Sc. Lond., Ph.D. Manc. Maxted, E. B., D.Sc. Lond., Ph.D. Berl., F.I.C. (Catalysis) (S.). King, Annie M., Ph.D. Research Asst. Chemistry, Applied, v. p. 37. Chemistry, Hygienic [Lectr. Russell, E., B.Sc. Lond., F.I.C.	Johnson, C. H., B.Sc., Ph.D.  Lond. Asst. Lectr.  Classics [H. O. Wills Prof. Dobson, J. F., M.A. Camb. (Greek) Beare, W., M.A., Dub. (Latin) Prof. Pitman, H., M.A. Ox. Lectr. Eichholz, D. E., B.A. Camb.  Asst. Lectr.  Commerce, v. Engineering Dentistry, v. infra  Domestic Science  Whitaker, Ruth Lectr. Clarke, E. Gladys, O.B.E. (Dom. Econ.) Lectr. Clayton, Dorothy (Method) (R.). Hale, Evelyn M., B.Sc. Colum. (Sci.) (R.). Kenney, Ethel (Laundrywork)  Lockhead, Gladys J. K. (Cookery) (R.).  McVicker, Céleste L. G. (Housewifery) (R.). Riddell, Florence E. (Dressmaking) (R.). Stewart, Margaret B. C., B.H.Sc. N.Z. (Chem.) (R.). Voller, Kate A. (Needlework) (R.). Wright, Edith A. (Cookery). (R.). Lawrence, Evelyn, B.Sc. (Econ.), Ph.D. Lond. (Engl. and Educ.) Shaw, Hilda, B.Sc. Lond. (Sci.)  Dumas, Patience, B.Sc. Lond. (Sci.)  Dumas, Patience, B.Sc. Lond. (Sci.) Hutchinson, Charlotte M. (Edn. and Craft) (R.). Underhill, Mary C. (Cookery and Dom. Subjects) (R.). Lancaster, Hyda M. (Laundrywork and Dom. Subjects)  (R.). McCracken, Dorothy K. (Home Management) (R.).
Procedure Beet Lond FIC	McCracken, Dorothy K. (Home
Russell, E., B.Sc. Lond., F.I.C.	Management) (R.).
Chemistry, Physical	Clark, Janie (Cookery) (R.).
Garner, W. E., M.A. Lond., D.Sc.	Quick, Gladys E. (Needlework).
Birm. Leverhulme Prof.	(R.).
(R.) = Recognized teacher. (S.) =	Special Lectr. * Head of Dept.

Wallbank, Emily (Needlework and Jones, S. J., M.A. Wales Dressmaking) Asst. Lectr. Geology Economics Reynolds, S. H., M.A., Sc.D. Whyte, W. H., M.A. Leeds Lectr.\* C. Wills Prof. Camb. Burrows, H. R., B.Com. Leeds Turner, H. W., M.A. Ox., F.G.S. Lectr. Lectr. Education Smith, S., M.A. Camb., D.Sc. Prof. Durh. Lectr. Foster, T. S., M.A. Ox., F.R.A.I., Wallis, F. S., D.Sc., Ph.D. Master of Method. Reader.\* Asst. Lectr. Lecturers: German Childs, E. C., M.A., B.D. Lond. Closs, A. M., Ph.D. Graz. Lectr.\* Nicholson, J. H., B.A. Ox., M.A. Barber, C. C., B.A. Ox. Cott, H. B., B.A. Camb. Asst. Lectr. Whitwill, Gladys C., M.A. Hebrew, v. Orient. Langs. Pilley, J. G., B.A. Ox. History Warrell, A., F.R.C.O. (Music). Mowat, R. B., M.A. Ox. Prof. Morice, Enid G., M.A. Staveley, May C., M.A. Dub., Pye, Margaret W., B.A., Ph.D. M.A. Lectr. Lond. MacInnes, C. M., M.A. Ox. Lectr. Nixon, Mrs. D. G. C., M.B., B.S. Gough, J. W., M.A. Ox. Lectr. Lond., M.R.C.S., L.R.C.P. Italian (Hygiene) (R.). Cellini, B., D. Litt. Genoa (S.)\* Philips, Miss H. (Kindergarten) (R.). Witney, Miss M., B.A. Lond. Lewis, M. M., M.A., LL.B. Camb. (Kindergarten) (R.). Veale, E. W. W., LL.D. Lond. Skinner, F. (Art) (R.). Elliott, Miss M. K. (Kindergarten). Wilshere, A. M., M.A. Ox., LL.B. Lond. Lectr. (Comml. L.). Engineering, v. p. 37. Bain, K., LL.B. Lond. Asst. Lectr. [Winterstoke Prof. English Mathematics Crofts, J. E. V., B.A., B.Litt. Ox. Hassé, H. R., M.A. Camb., D.Sc. Haworth, P., M.A. Manc., B.Litt. H. O. Wills Prof. Manc. Ox., Ph.D. Innsb. Fraser, P., M.A. Camb., B.Sc. Birkhead, Edith, M.A. Liv. Lectr. Aberd. Reader (Geometry). Needham, H. A., M.A. Birm., Todd, H., B.A. Camb. Lectr. Doct, de l'Univ. de Paris Vint, J., M.A. Belf. Lectr. Lectr. Hodge, W. V. D., M.A. Edin. [Prof. French, v. also p. 37. Lectr. Boillot, F. F., M.A. Shef., L. ès L. Swirles, Bertha, Ph.D. Camb. Perkins, B. N., M.A. Camb. Lectr. Asst. Lectr. Warne, F. J., B.A. Lond. Malan, A. A., L. ès L. L Lectr. Maths., Applied Lecteur. Boulton, E. S., M.A. Camb., B.Sc. Geography [Reader.\* Lond. Prof. Jervis, W. W., M.Sc. Durh., F.G.S. T., B.Sc. Newing, S. Lond., Kendall, O. D., M.A. Camb. Lectr. A.R.C.S. Asst. Lectr. (R.) = Recognized teacher. (S.) = Special Lectr.\* Head of Dept.

Medicine, v. infra	Theological Subjects
Military Subjects	Dakin, Rev. A., B.D. Lond., D.Th.
Young, N. C. S., Capt., Roy. War-	Heid.
wickshire Regt. (S.).	Robinson, Rev. F. E., B.A., B.D.,
Mining, v. Engin.	Lond., M.A. Franks, Rev. R. S., M.A. Camb.,
Music, v. Educn.	D.Litt. Ox., LL.D.
Oriental Languages	Dimont, Rev. C. T., D.D. Ox.,
O'Leary, De L., M.A., D.D. Dub.	M.A.
(Aramaic and Syriac) (S.).	West, Rev. E. C., M.A. Camb.
Polack, J., B.A. Lond. (S.).	Bellars, Rev. A. R., M.A. Camb. and Bris.
- ' '	
Philosophy, v. also Educn.	Hawes, Rev. A. J. G., B.D., Ph.D. Lond.
Field, G. C., M.A. Ox. Prof.	
Carré, M. H., M.A. Ox. Lectr.	Clayton, Rev. J. F., M.A. Ox.
Physics, v. also Chem., Math.	Richardson, Rev. A. T., M.A. Ox. Prideaux, Rev. S. P. T., D.D. Ox.
Tyndall, A. M., D.Sc. Lond., D.Sc.	Clarke, Rev. C. P. S., M.A. Ox.
H. O. Wills Prof.	
Lennard-Jones, J. E., D.Sc. Manc.,	Backhouse, Rev. T. P., M.A. Camb.
Ph.D. Camb. (Theoretical	
Physics) Melville Wills Prof.	Zoology [Reader.
Skinner, H. W. B., M.A., Ph.D.	Henderson, W. D., M.A., B.Sc.
Camb.	Aberd., Ph.D. Freib. i/B.
H. H. Wills Research Fellow.	Asst. Lectrs.:
and Lectr. (Spectrosc.).	Sloane, J. F., B.Sc. Glas.
Jackson, L. C., M.Sc. Lond., Ph.D.	Smith, H. G., B.Sc. Glas.
Leiden	Medicine
H. H. Wills Research Fellow.	
	(for an him to of fort
T coturors .	(for subjects of first 2 yrs.—Anat.,
Lecturers:	etc., v. supra)
Williams, Illtyd, M.Sc. Wales	etc., v. supra) Anæsthetics
Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P.	etc., v. supra) Anæsthetics Stock, W. S. V., M.B., B.S. Lond.,
Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P. Lond.	etc., v. supra)  Anæsthetics  Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. (v. also Anat.)
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Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P. Lond. Sucksmith, W., D.Sc. Leeds Potter, H. H., Ph.D. Lond., B.Sc. Powell, C. F., B.A., Ph.D. Camb.  Physiology Brocklehurst, R. J., M.A., D.M., B.Ch. Ox. Prof. Lecturers: Wiltshire, Marion O. P., D.Sc.	etc., v. supra)  Anæsthetics Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. (v. also Anat.) Lectr.* (C.). Corfield, C., M.D. Durh. (C.). Cooper, R., M.R.C.S., L.R.C.P. (R.). Tutors: Logan, H. B., M.R.C.S., L.R.C.P. Moore, L. A., M.B., Ch.B. Bradbeer, E. G., M.B., Ch.B. (R.).
Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P. Lond. Sucksmith, W., D.Sc. Leeds Potter, H. H., Ph.D. Lond., B.Sc. Powell, C. F., B.A., Ph.D. Camb. Physiology Brocklehurst, R. J., M.A., D.M., B.Ch. Ox. Prof. Lecturers: Wiltshire, Marion O. P., D.Sc. Irving, J. T., M.A., M.D., Ph.D.	etc., v. supra)  Anæsthetics Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. (v. also Anat.) Lectr.* (C.). Corfield, C., M.D. Durh. (C.). Cooper, R., M.R.C.S., L.R.C.P. (R.). Tutors: Logan, H. B., M.R.C.S., L.R.C.P. Moore, L. A., M.B., Ch.B. Bradbeer, E. G., M.B., Ch.B. (R.). Bacteriology, v. Pathology
Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P. Lond. Sucksmith, W., D.Sc. Leeds Potter, H. H., Ph.D. Lond., B.Sc. Powell, C. F., B.A., Ph.D. Camb.  Physiology Brocklehurst, R. J., M.A., D.M., B.Ch. Ox. Prof. Lecturers: Wiltshire, Marion O. P., D.Sc.	etc., v. supra)  Anæsthetics Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. (v. also Anat.) Lectr.* (C.). Corfield, C., M.D. Durh. (C.). Cooper, R., M.R.C.S., L.R.C.P. (R.). Tutors: Logan, H. B., M.R.C.S., L.R.C.P. Moore, L. A., M.B., Ch.B. Bradbeer, E. G., M.B., Ch.B. (R.). Bacteriology, v. Pathology Diseases of the Skin
Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P. Lond. Sucksmith, W., D.Sc. Leeds Potter, H. H., Ph.D. Lond., B.Sc. Powell, C. F., B.A., Ph.D. Camb. Physiology Brocklehurst, R. J., M.A., D.M., B.Ch. Ox. Prof. Lecturers: Wiltshire, Marion O. P., D.Sc. Irving, J. T., M.A., M.D., Ph.D.	etc., v. supra)  Anæsthetics Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. (v. also Anat.) Lectr.* (C.). Corfield, C., M.D. Durh. (C.). Cooper, R., M.R.C.S., L.R.C.P. (R.). Tutors: Logan, H. B., M.R.C.S., L.R.C.P. Moore, L. A., M.B., Ch.B. Bradbeer, E. G., M.B., Ch.B. (R.). Bacteriology, v. Pathology Diseases of the Skin Wills, W. K., O.B.E., M.A., M.B.,
Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P. Lond. Sucksmith, W., D.Sc. Leeds Potter, H. H., Ph.D. Lond., B.Sc. Powell, C. F., B.A., Ph.D. Camb.  Physiology Brocklehurst, R. J., M.A., D.M., B.Ch. Ox. Prof. Lecturers: Wiltshire, Marion O. P., D.Sc. Irving, J. T., M.A., M.D., Ph.D. Camb., M.R.C.S., L.R.C.P.  Social Work	etc., v. supra)  Anæsthetics  Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. (v. also Anat.)  Lectr.* (C.).  Corfield, C., M.D. Durh. (C.).  Cooper, R., M.R.C.S., L.R.C.P. (R.).  Tutors:  Logan, H. B., M.R.C.S., L.R.C.P. Moore, L. A., M.B., Ch.B. Bradbeer, E. G., M.B., Ch.B. (R.).  Bacteriology, v. Pathology  Diseases of the Skin  Wills, W. K., O.B.E., M.A., M.B., B.Chir. Camb. (C.).
Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P. Lond. Sucksmith, W., D.Sc. Leeds Potter, H. H., Ph.D. Lond., B.Sc. Powell, C. F., B.A., Ph.D. Camb.  Physiology Brocklehurst, R. J., M.A., D.M., B.Ch. Ox. Prof. Lecturers: Wiltshire, Marion O. P., D.Sc. Irving, J. T., M.A., M.D., Ph.D. Camb., M.R.C.S., L.R.C.P.  Social Work	etc., v. supra)  Anæsthetics Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. (v. also Anat.) Lectr.* (C.). Corfield, C., M.D. Durh. (C.). Cooper, R., M.R.C.S., L.R.C.P. (R.). Tutors: Logan, H. B., M.R.C.S., L.R.C.P. Moore, L. A., M.B., Ch.B. Bradbeer, E. G., M.B., Ch.B. (R.). Bacteriology, v. Pathology Diseases of the Skin Wills, W. K., O.B.E., M.A., M.B., B.Chir. Camb. (C.). Kingston, S. H., M.B., Ch.B.,
Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P. Lond. Sucksmith, W., D.Sc. Leeds Potter, H. H., Ph.D. Lond., B.Sc. Powell, C. F., B.A., Ph.D. Camb.  Physiology Brocklehurst, R. J., M.A., D.M., B.Ch. Ox. Prof. Lecturers: Wiltshire, Marion O. P., D.Sc. Irving, J. T., M.A., M.D., Ph.D. Camb., M.R.C.S., L.R.C.P.  Social Work Orpen, A. Kathleen (R.). Technology, v. infra	etc., v. supra)  Anæsthetics Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. (v. also Anat.) Lectr.* (C.). Corfield, C., M.D. Durh. (C.). Cooper, R., M.R.C.S., L.R.C.P. (R.). Tutors: Logan, H. B., M.R.C.S., L.R.C.P. Moore, L. A., M.B., Ch.B. Bradbeer, E. G., M.B., Ch.B. (R.). Bacteriology, v. Pathology Diseases of the Skin Wills, W. K., O.B.E., M.A., M.B., B.Chir. Camb. (C.). Kingston, S. H., M.B., Ch.B., D.P.H. (C.).
Williams, Illtyd, M.Sc. Wales Piper, S. H., D.S.O., D.Sc., F.I.P. Lond. Sucksmith, W., D.Sc. Leeds Potter, H. H., Ph.D. Lond., B.Sc. Powell, C. F., B.A., Ph.D. Camb.  Physiology Brocklehurst, R. J., M.A., D.M., B.Ch. Ox. Prof. Lecturers: Wiltshire, Marion O. P., D.Sc. Irving, J. T., M.A., M.D., Ph.D. Camb., M.R.C.S., L.R.C.P.  Social Work Orpen, A. Kathleen (R.). Technology, v. infra	etc., v. supra)  Anæsthetics Stock, W. S. V., M.B., B.S. Lond., F.R.C.S. (v. also Anat.) Lectr.* (C.). Corfield, C., M.D. Durh. (C.). Cooper, R., M.R.C.S., L.R.C.P. (R.). Tutors: Logan, H. B., M.R.C.S., L.R.C.P. Moore, L. A., M.B., Ch.B. Bradbeer, E. G., M.B., Ch.B. (R.). Bacteriology, v. Pathology Diseases of the Skin Wills, W. K., O.B.E., M.A., M.B., B.Chir. Camb. (C.). Kingston, S. H., M.B., Ch.B., D.P.H. (C.). nized teacher. (S.)=Special Lectr.

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Burgess, N., M.A., M.D. Camb. (C.).	Smythe, H. J. D., M.S. Lond.,
	F.R.C.S. Demr. (C.). Baker, Lily, M.D., B.Ch. Lond.,
Fevers	DAO EDCCI (C)
Peters, B. A., M.D., B.Ch., D.P.H.	B.A.O., F.R.C.S.I. (C.).
Camb. $(C.)$ .	Shepherd, H. L., Ch.M.
Forensic Med., etc., v. Chem.	Tutor and (R.).
	Ophthalmology
Laryng., Rhin., and Otology	Iles, A. E., M.B., B.S. Lond.,
Watson-Williams, E., M.B., B.Ch.	F.R.C.S. (C.) Lectr.*
Camb., Ch.M. (C.). Wright, A. J. M., M.B., B.S. Lond.,	Chambers, E. R., F.R.C.S.E.,
Wright, A. J. M., M.B., B.S. Lond.,	D.O.M.S. (C.).
M.B., Ch.B., F.R.C.S.	Garden, R. R., M.A., M.B., Ch.B.
Lectr.* (C.).	Aberd., D.P.H. (R.).
Scarff, G., M.B., Ch.B. Edin. (C.).	
James, J. A., M.D., B.S. Lond.,	Pathology, v. also Pub. Health
F.R.C.S. (C.).	Hall, I. W., M.D., Ch.B. Manc.
F.R.C.S. (C.). Harris, H. E., B.A., M.B., Ch.B.	Prof.
	Path. and Bacteriology
	Fraser, A. D., M.A., B.Sc., M.B.,
Medicine, v. also Path., Pharm.	Ch.B. Glas., D.P.H. Demr.
Nixon, J. A., C.M.G., B.A., M.D.,	Taylor, A. L., M.D. Leeds. Demr.
B.Chir. Camb., F.R.C.P.	Magee, V., M.B., B.Ch. Belf.,
Clinical Dean and Prof.	B.A.O., D.P.H. Demr.
Charles, J. R., M.A., M.D. Camb.,	•
F.R.C.P. (C.).	Pharmacology and Therap.
Coombs, C. F., M.D., B.S. Lond.,	Neild, Newman, M.B., Ch.B. Vict.
F.R.C.P. Clinical Dean (C.).	(also (C.) in Med.) Lectr.*
Clarke, R. C., O.B.E., M.B., Ch.B.	(also (C.) in Med.) Lectr.*  Pharmacy (Practical) Taylor, A. L., M.P.S. (R.).
(C.).	Taylor, A. L., M.P.S. (R.).
	Hetherington, W., Ph.C. (R.).
Birrell, J. A., M.D., B.S. (C.).	Disciplination, vv., in.c. (It.).
Jr. Tutor.	Physio-Therapeutics *[Lectr.
Herapath, C. E. K., M.D., B.S.	Christofferson, P. E., M.B., Ch.B.
Lond. (C.).	Public Health
Carleton, H. H., M.A., M.D., B.Ch.	Parry, R. H., M.B., B.S. Lond.,
Ox. Sr. Tutor (C.).	D.P.H. Lectr.*
Todd, A. T. O.B.E., M.B., Ch.B.	
Edin. (C.).	Radiology
Perry, C. B., M.D., Ch.B. (R.).	Bush, G. B., M.B., Ch.B. (R.).
Sutton, G. E. F., M.D. Lond.	Radio-Therapy $(C)$ .
Jr. Tutor (R.).	Mayes, F. J. A., M.R.C.S., L.R.C.P.
Medicine (Dental Students)	
	Skiagraphy [(C.).
Davis, O. C. M. (v. Chem.) Lectr.	Bergin, F. G., M.R.C.S., L.R.C.P.
Mental Diseases [(C.).	Surgery
White, E. B. C., M.R.C.S., L.R.C.P.	Groves, E. W. H., M.D., M.S.,
Obstetrics [Prof. (C.).†	B.Sc. Lond., F.R.C.S. Prof.†
Rayner, D. C., Ch.M., F.R.C.S.	Chitty, H., M.B., M.S. Lond.,
Statham, R. S. S., O.B.E., M.D.,	
Ch.M. (C.).	Walters, C. F., F.R.C.S. (C.).
(C.)=Clinical Lectr. (R.)=Recog	mized teacher. * Head of Dept.

(C.)=Clinical Lectr. (R.)=Recognized teacher. \* Head of Dept. † Director of Clinical Studies. Moore, C. A., M.S., M.B. Lond., Ch.M., F.R.C.S. (C.). Short, A. R., B.Sc., M.D., B.S. Lond., F.R.C.S. (C.). Wood, D., F.R.C.S. Senior Tutor (C.). Adams, A. W., M.B., M.S. Lond., F.R.C.S. Tasker, D. G. C., M.B., M.S. Lond., B.Sc., F.R.C.S. (C.). Jackman, W. A., M.B., Ch.B. Lectr. to Dental Students (C.). Jr. Tutor. Gorham, A. P., M.B., Ch.B. (R.). Griffiths, S. J. H., M.B., Ch.B., F.R.C.S. (C.) Ir. Tutor.

#### Dentistry

Dental Mechanics Wing, J. C., L.D.S. Lectr.\* Dental Surgery, v. also Chem. and Surg. Fawn, G. F., B.D.S., M.R.C.S.. L.R.C.P. (C.) Lectr.\* Nichols, F. C., M.B., Ch.B., L.D.S. (also in D. Anat.) Lectr. & (C.). Kettlewell, N. H., H.D.D. Edin., (C.) Jr. Tutor. L.D.S. Sutherland, I. G., L.D.S. (Orthodontics) Asst. Lectr. and Tutor. Rigg, S. K., L.D.S. Tutor. Lennox, W. J., B.D.S. Tutor.

Faill, C. J. C., L.R.C.P., M.R.C.S.
Ed. (R.).
Hartley, Greta, M.B., B.S. Lond.
(R.).
Hughes, Marguerite G., M.B.,
Ch.B. (R.).
Morison, A. G., M.B., Ch.B., D.P.H
Lond. (R.).

Training Course for Health Visitors

Dalby, A. A., M.R.C.S., L.R.C.P.

### Engineering

(In the Technical College of the Society of Merchant Venturers)

Applied Chemistry [Lectr. Andrews, W. A., B.Sc. Birm., A.I.C.

Automobile Engineering [Prof. Morgan, Wm., B.Sc., M.I.A.E.

Civil Engineering

Pippard, A. J. S., D.Sc. Prof. Francis, W. E., B.Sc. Wales Lectr. Elgood, W. N., B.Sc. St. Andr.

Lectr.

Drawing
Baker, J. W. Instr.
Mountney, C. F. Instr.
Engineering Comml. Subjects
Griffin, A. Lectr.
Electrical Engineering

Robertson, D., D.Sc. Glas., M.I.E.E. Prof. Holmes, S. Lectr. Chard, F. de la C., B.Sc. Lond.

Asst. Lectr.

Mechanical and Mining Engineering

Robertson, A., D.Sc. Edin. Prof. Watson, F. R. B., B.Sc. Edin.

Lectr. (Mech. E.).
Dearden, W. H., M.Sc. Manc.
(Metall.) Lectr.

Morrison, J. L. M., B.Sc. Asst. Lectr. (Mech. E.).

Newport, A. J., B.Sc.

Research Asst. (Mech. E.).

French and German for Engin.

Students [Asst. Lectr.

Bennett, Edith, M.A. Birm.

### University Extension

Director of Extra-mural studies—Nicholson, J. H., M.A. (v. Eduen.).

Etheridge Special Lectr. in International Relations—A. S. Newell, M.A., Brown Univ., U.S.A.

(C.)=Clinical Lectr. (R.)=Recognized teacher. \* Head of Dept.

(R.).

Extra-mural Lecturers: 30 members of the staff, including 17 for Tutorial Classes and 3 for Preparatory Classes.

Resident Tutors:

Gloucester

Salt, W. E., M.A. Sheff.. B.Com. Manc.

Somerset

Cair, S. H., B.Sc. (Econ.) Lond. Dalston, S. B., B.A. Camb.

Dorset

Dacombe, Marianne R., M.A. Ox.
Wilts

Douglas-Smith, A. E., M.A. Camb. Forest of Dean

Salmon, C. V., M.A. Ox., Ph.D. Freib. i/B.

## GENERAL INFORMATION

University College, Bristol, founded in 1876, was dissolved in 1909 on the incorporation by Royal Charter of the Univ. of Bristol. The main buildings, including a large extension recently opened which cost £500,000, a new building for the accommodation of the Physics department (cost £200,000), and other projected additions, when complete, will cover a site of 16 acres near the centre of the city on high ground adjoining residential districts. The Municipal Museum and Art Gallery adjoin.

The Technical College of the Society of Merchant Venturers provides accommodation for and maintains the Faculty of Engineering of the University. Dean of the Faculty—Prof. Andrew Robertson, D.Sc.

LIBRARIES, 87,500 vols. LABORATORIES: Scientific, Medical, and Engineering, all equipped for purposes of research. Agri-Horticultural station at Long Ashton with Expl. fruit plantations 268 acres devoted to research in fruit-culture, cider-making, plant diseases and their treatment, etc. Fruit and vegetable preservation research station at Campden, Glos., controlled by the Univ. on behalf of the Ministry of Agr., for instruction and experimentation on a semi-commercial scale. Hospitals available for clinical study, 2 General (668 beds), Children and Women (100), Eye (40), in all 808 beds.

FACULTIES. Arts, Science, Medicine, Engineering. Deans: Prof. Field (Philosophy), Prof. Lennard-Jones (Theoretical Physics), Prof. Fawcett (Anatomy), Prof. A. Robertson (Mech. and Mining Eng.).

Special Departments. Education (places for 180 men and 180 women students); Law; Agriculture and Horticulture; Pathological Laboratory (for investigation of epidemic and other outbreaks, examination of waters and foods.

MATRICULATION. In common with all other English Univs., Bristol holds School and Higher School Certificate Examns., at which candidates may qualify for matriculation. It holds no separate matriculation examn. See also Appendix XX.

Degree Courses. B.A., B Sc., B.Sc. in Agriculture, B.Sc. in Engineering —3 yrs., including at least 2 in the Univ.; Honours in Arts and Pure Science —4 yrs., except for those who enter with Higher School Certif.; B.Sc. in Domestic Science—4 yrs.; by research in case of a graduate of another Univ.—2 yrs.; M.B., Ch.B.—5 yrs., after passing a Prelim. Science examn. in Chem. and Physics; B.D.S.—5 yrs., including at least 3 in the Univ.

Instruction given in Theological subjects in the Associated Colleges to undergraduates of the Univ. by the Principal or teachers mentioned above is, for the purpose of the B.A. degree, deemed to be given in and by the Univ.

Postgraduate medical studies are under the direction of the Prof. of Pathology, who arranges for weekly afternoon demonstrations and discussions in April and May. Fee for the course, I guinea.

HIGHER DEGREES. M.A., D.Litt.; M.Sc., D.Sc. (in Pure Sc. or Engineering); Ch.M., M.D.; Ph.D. (see p. 18). Graduates of other Univs. are placed practically on the same footing as graduates of Bristol as far as regards facilities for proceeding to all these except the Medical Degrees. Candidates who graduate with Honours in Science may take the M.Sc. one yr. later. Otherwise the Mastership is not granted within 2 yrs. after graduating. The M.D. may be taken 2 yrs. after graduating in Med., the D.Litt. 4 yrs. after the M.A., and the D.Sc. 4 yrs. (3, if devoted to original work in the Univ.) after the M.Sc.

DIPLOMAS. Education (post-graduate) 1 yr., L.D.S. 4 yrs., D.P.H. (for fully registered medical practitioners of 2 yrs.' standing), 9 months, D.V.S.M. (for M.R.C.V.S. of 1 yr.'s standing), Engineering 3 yrs.

CERTIFICATES. Testamur in Educn., 1 yr.; Continuation School Teachers' Certif., 1 yr.; Testamur in Social Study, 2 or (Higher Testamur) 3 yrs.; Testamur in Biology, 1 yr.; Engineering Apprentices, 2 yrs.

FEES. Matricn., 3 gs.; Registration, £1:10s.; Tuition, annual, B.A., 24 gs., Theol. Students (1st year only), 20 gs.; B.Sc., 30 gs.; B.Sc. in Engin., 40 gs. (Lab. practice alone, 4 gs. per term for one day a week); M.B., Ch.B., entire curriculum, 205 gs.; B.D.S., including mech. lab. and hospl. practice, 215 gs.; Testamur in Social Study, 2 yrs., 27 gs.; Degree examns. (including Graduation), B.A. or B.Sc., 9½ gs.; M.D., 24 gs.; M.D.S., 24 gs.; M.A. and M.Sc., 9½ gs.; Ph.D., 13 gs. Univ. Union, £3:3s. per annum.

RESEARCH. The Colston Research Society devotes annually about £400 to the promotion of Research in the Univ. It offers, preferably to Bristol graduates, fellowships of £150 each, the money being provided by donors, who are allowed to determine the subject of the research and, subject to the approval of the Board of the Faculty, to nominate the holder. The donor has a right of access to the research work and to receive the result of it 12 months prior to publication.

Scholarships for Graduates. £160 for research in Engin.; £40 and £31 (women only), £46 (men only), for post-graduate course; £52 for Chemical Metall. research; £30 for study in English Lit.; studentship in Mod. Langs., £80; Studentship in Philosophy, £100.

RESIDENCE. Mortimer House and Wills Hall for men—from £75 p.a.; Clifton Hill House and 3 other residences for women students—from 60 gs. p.a.

APPOINTMENTS BOARD. Secy., T. A. Leach, M.A.

For Former Students there is an Association of Alumni.

UNIVERSITY EXTENSION. A Joint Board was formed in 1922 consisting of representatives of the Univ. of Bristol, the Univ. College of the South-west of England, Exeter, and the Univ. College of Southampton. Secy.—J. H. Nicholson, M.A., Director of Extra-mural Studies, The University, Bristol.

Co-operation with Rural Community Councils. The Univ. appoints 3 representatives to the R.C.C. of Gloucestershire and Somerset respectively. The Director of Extra-mural Studies in the Univ. is Chairman of the Gloucestershire R.C.C., and Chairman of the Education Committee of each of the two Councils. Both Rural Community Councils contribute to the salary of whole-time tutors for Adult Education, appointed by the Univ. for those Counties.

Publications. Calendar (Oct.); Faculty prospectuses issued in June;

annual report of Council; Pamphlets on Extension Lectures (with list of lectures on the Bristol, Southampton, and Exeter panels), Handbook and Directory of Adult Education. Public Lectures, Halls of Residence, Regns. for Matrica. and for School Certif. Examns. (Examn. Papers, 1s. 3d. per set post free); Students' Mag. Nonesuch, 1s.

## THE YEAR 1930-31

BENEFACTIONS. £50,000 for research in Physics from the Rockefeller Foundation and a further £25,000 for the same purpose from Mr. W. Melville Wills. The latter sum is used for the endowment of a Chair to be known as the "Melville Wills Chair of Physics" in memory of the late Mr. H. H. Wills £4000 from the late Dame Mary Monica Wills for Scholarships for students entering from Clifton Coll.; to be called the "H. H. Wills Science Scholarships." £1000 (to the V.-C. for the time being) from the late Dame Mary Monica Wills for Church of England services in the Chapel at Wills Hall. £50 from the late Dr. F. Richardson Cross, formerly Reader in Ophthalmol. £2900 under the will of the late Prof. T. H. Green. In addition to its annual collection (£904 in 1931) for assisting research in the Univ. the Colston Research Society received donations amounting to £5000 for research in Medicine. The Napier Abbot Fund for research in the Faculty of Arts was also raised from £1600 to £1870.

New Buildings. Manor Hall, the new Hall of Residence for Women will be ready for occupation in Oct. 1932.

New Posts. Readerships in Agric. and Bio-Chem.; Special Lectureship in Catalysis; Lectureships in Spectroscopy, Physics, Metall. and Dom. Econ.; Clinical Lectureship in Surg.; Asst. Lectureships in Appl. Maths. and Elect. Engin.; Resident Tutorships in Dorset, Wilts, and the Forest of Dean; Research Assistantship in Agric. Chem.

OTHER DEVELOPMENTS. The National School of Cookery and Other Branches of Domestic Economy, 72-78 Buckingham Palace Road, London, associated with the Univ. for the purpose of the final 4th yr. of the curriculum for the Degree of B.Sc. (Dom. Sci.).

CHANGES IN REGULATIONS. The regns. for the B.Sc. (Agr.) have been amended: students are now required to reside in the Univ. for the first 5 terms of the curriculum; regns. for the B.Sc. in Engin. have been amended, chiefly as regards the curriculum for hons. A slight alteration has also been made in the regns. for the degree in Dom. Sci., which is now known as B.Sc. (Dom.Sc.).

EXTRA-MURAL WORK. In rural areas the work is organized by Resident Tutors (44 centres in Gloucestershire, 53 in Somerset); 40 short courses, and 256 lectures were given.

RETIREMENTS AND DEATHS. Resignations: J. A. Hanley, Prof. of Agric., on appointment to the Chair of Agric. in the Univ. of Durham; Helen M. Wodehouse, Prof. of Educn., on appointment as Mistress of Girton; J. Boyd, Reader and Hd. of Dept. of German, on appointment as Reader in German in the Univ. of Oxford; W. L. Cuttle, Lectr. in Classics, on appointment as Fellow and Tutor of Downing Coll., Camb.; Dr. H. R. B. Hickman (Physiol.); H. G. H. Kearns (Zool.); L. N. Staniland (Entomol.); M. Morgan (Civil Eng.); J. W. Ewan (Econ. Mycol.); J. Denonain (French); N. ff. Kemm (Surg.); S. W. Edwards (Agric.); Mrs. Cyril Walker (Hyg.); Miss J. W. Byrne (Kindergarten Traing.); Miss M. Gothorp (Kinderg. Traing.). Deaths: Dame Mary Monica Wills and Sir Vernon Wills, members of Council; John

Munro, Emer. Prof. of Mech. Engin.; The Right Rev. George A. Burton (Bishop of Clifton); F. Richardson Cross; William Avery Adams; and William F. Denning, Hon. Graduates.

Honorary Degrees. D.Litt.—The Rev. A. H. Sayce. LL.D.—The Right Hon. Neville Chamberlain; Hiatt C. Baker (Pro-Chancellor).

STUDENTS. Full-time: total—572 men, 333 women, including 68 men, 48 women graduates. Part-time: total, 23 men, 26 women, including 1 woman graduate.

Degrees obtained. B.A., (Pass) 4 m., 15 w., (Hons.) 23 m., 37 w.; B.Sc., (Pass) 13 m., 3 w., (Hons.) 10 m., 2 w.; M.B., Ch.B., (Pass) 4 m., 2 w., (Hons.) 1 w.; B.D.S., (Pass) 1 m.; B.Sc. Eng., (Pass) 15 m., (Hons.) 5 m.; M.A., (Pass) 3 m., 1 w.; M.Sc., (Pass) 3 m.; M.Sc. Eng., (Pass) 2 m.; Ph.D., (Pass) 5 m.; D.Sc., (Pass) 1 m.; M.D., (Pass) 3 m.

## UNIVERSITY OF CAMBRIDGE

CHANCELLOR—Rt. Hon. STANLEY BALDWIN, M.A., Hon. LL.D. Trinity. VICE-CHANCELLOR—WILL SPENS, C.B.E., M.A., Master of Corpus Christi Coll.

HIGH STEWARD—His Grace the DUKE OF DEVONSHIRE, K.G., G.C.M.G., G.C.V.O., B.A., Hon. LL.D. Trinity.

Deputy High Steward—Rt. Hon. Baron Hanworth, K.B.E., M.A. Trinity, Master of the Rolls.

COMMISSARY—Hon. Mr. JUSTICE MACNAGHTEN, K.B.E., K.C., M.A. Trinity.

Proctors—F. J. Dykes, M.A., Trinity; W. N. C. van Grutten, M.A. King's.

ORATOR-T. R. GLOVER, M.A. St. John's.

REGISTRARY—E. HARRISON, M.A. Trinity.

FIRST ASSISTANT REGISTRARY AND SECRETARY OF THE GENERAL BOARD OF THE FACULTIES—R. E. PRIESTLEY, M.A. Claie; ASSISTANT REGISTRARY AND SECRETARY OF THE BOARD OF EXAMINATIONS—H. CLAYE, M.A. GONVIlle and Caius.

LIBRARIAN-A. F. SCHOLFIELD, M.A. King's.

Treasurer—T. Knox-Shaw, M.A. Sidney Sussex.

REPRESENTATIVES IN PARLIAMENT—Sir J. J. WITHERS, C.B.E., M.A. St. Catharine's and King's; G. H. A. WILSON, M.A. Clare.

### HEADS OF COLLEGES

CHRIST'S	Master	N. McLean, M.A.
CLARE	,,	G. H. A. Wilson, M.A.
CORPUS CHRISTI	,,	WILL SPENS, C.B.E., M.A.
Downing	,,	Prof. A. C. SEWARD, Sc.D., F.R.S.
Emmanuel	,,	P. Giles, Litt.D.
GONVILLE AND CAIUS	,,	J. F. Cameron, M.A.
Jesus	,,	A. GRAY, M.A.
King's	Provost	Rev. A. E. BROOKE, D.D.
MAGDALENE	Master	A. B. RAMSAY, M.A.
PEMBROKE	,,	A. HUTCHINSON, M.A., F.R.S.
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Minns, E. H., Litt.D.	Disney Prof.	Junior Observer.		
Burkitt, M. C., M.A.		Bibliography [Sandars Reader.		
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Macdonald, A. J. S., D.D. Trin.

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Sanders, H. E., M.A., Ph. D. Joh.

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Walton, A., Ph.D. Down. Demr.

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Agric. Econ. and History Venn, J. A., Litt.D. Qu.

Gilbey Lectr. Agric. Physiology [Reader. Marshall, F. H. A., Sc.D. Chr.

Animal Pathology

Buxton, J. B., M.A. Prof.

Entomology, Advancedand Economic

Eastham, L. E. S., M.A. Trin. H. Lectr.

Estate Management Weller, E. P., M.A. King's Lectr. Dean, N., M.A. Trin. H. Demr.

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Gurney Lectr. Boulton, E. H. B., M.A. Cath.

Lectr.

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Lubbock, R., M.A. Pet. Peake, A. H., M.A. Joh. Phear, H. W., M.A. Cai. Portway, D., M.A. Cath. Spittle, J. T., M.A. Pemb. Turner, L. B., M.A. King's. Womersley, W. D., M.A. Emm. Woodward, W. E., M.A. Trin. Wyatt, T. C., M.A. Chr. Demonstrators: Gough, G. S., M.A. Pemb. Sanders, T. R. B., M.A. Corp. Angus, R. H., M.A. Sid. Aeronautical Engineering

Jones, B. M., M.A. Emm. F. Mond Prof.

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Mechanism and Appl. Mechanics Inglis, C. E., O.B.E., M.A. King's

Thermodynamics Peel, T., M.A. Magd. Hopkinson Lectr.

#### Medicine.

(for subjects of the first 2 yrs.— Anat., etc., v. supra)

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 Medical Entomology Warburton, C., M.A. Chr. Demr.

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Demrs.: Williamson, R., M.A. Cla.

Spooner, E. T. C., M.A. Cla. Milne, A. A., M.A. King's.

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Nicholson, R. A., Litt.D. Trin.
Bevan, A. A., M.A. Trin.

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# Leslie Stephen Lecturer

University Extension

Stipendiary Lecturers, appointed by Board of Extra-mural Studies: P. L. Babington, M.A., LL.B. Joh. (James Stuart Lecturer), G. P. Bailey, Hon. M.A. (James Stuart Lecturer), I. C. Hannah, M.A. Trin., D. R. Hardman, M.A. Chr., W. P. Baker, M.A. Jes.

Master—N. McLean, M.A. Fellows: Haddon, A. C., M.A., Sc.D., F.R.S. Campbell, S. G., M.A. Valentine-Richards, Rev. A. V., M.A.

Steel, A. B., M.A. Peck, A. L., M.A., Ph.D.

Marshall, F. H. A., M.A., Sc.D., F.R.S. Saunders, J. T., M.A., Tutor. Downs, B. W., M.A., Tutor. Grose, S. W., M.A., Tutor. Wyatt, T. C., M.A. Steen, S. W. P., M.A.

Snow, C. P., Ph.D.

Rose, Prof. J. Holland, Litt.D

Rastall, R. H., M.A., Sc.D.

Harris, T. M., M.A., Ph.D

CLARE COLLEGE. Founded 1326. Master—G. H. A. Wilson, O.B.E., M.A., M.P. Fellows:

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Telfer, Rev. W., M.C., M.A. Priestley, R. E., M.C., M.A. Godwin, H., M.A., Ph.D. Spooner, E. T. C., M.A. Hammond, N. G. L., B.A. Jones, Prof. O. T., M.A., F.R.S.

CORPUS CHRISTI COLLEGE. Founded 1352. Master—Will Spens, C.B.E., M.A., Chev. Lég. d'H. Fellows:

M.A., Chev. Lég. d'H. Fellows:

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Pearce, Rt. Rev. E. C., D.D., Lord
Bishop of Derby.

Pickthorn, K. W. M., M.A., Tutor.

Hoskyns, Rev. Sir Edwyn C., Bt.,
M.A.

Morris, G. G., M.A., Bursar.

Clark-Kennedy, A. E., M.A., M.D.,
M.R.C.P.

Goodhart, A. L., M.A., LL.D.
Sanders, T. R. B., M.A.
Smyth, Rev. C. H. E., M.A.
MacCurdy, J. T., Sc.D. (M.D. Johns
Hopkins).
Mynors, H. C. B., M.A., Assistant
Tutor.
Charvet, P. E., M.A.
Carter, G. S., M.A., Ph.D.

DOWNING COLLEGE. Founded 1800. Master—A. C. Seward, M.A., Sc.D., F.R.S., Prof. of Botany. Downing Prof. of Laws of England: H. D. Hazeltine, M.A., Litt.D., F.B.A. Fellows:

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Berry, Rev. A. J., M.A.
Thomas, H. H., M.A., Sc.D.
Smith, F. B., C.M.G., M.A., Bursar.
Whalley-Tooker, H. C., M.A., LL.M.,
Senior Tutor.

Appleton, A. B., M.D.
Cuttle, W. L., M.A., Tutor and Dean.
Holmes, E. G., M.A., M.B., B.Chir.,
Tutor.

EMMANUEL COLLEGE. Founded 1584. Master—Peter Giles, M.A., LL.D., Litt.D., F.B.A., Reader in Comp. Philol. Fellows:

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Norrish, R. G. W., Ph.D.
Head, Most Rev. F. W., M.C., M.A.
Wright, G. J. H., D.S.O., M.A.,
College Secretary.
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Grave, W. W., M.A., Ph.D.
Carslaw, H. S., M.A., Sc.D.
Wilson, A. H., B.A.
Rushton, W. A. H., M.A., Ph.D.
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GONVILLE AND CAIUS COLLEGE. Founded 1348. Master—J. F. Cameron, M.A. Fellows:

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Jesus College. Founded 1496. Foakes-Jackson, Rev. F. J., M.A., D.D. Abbott, E., M.A., Tutor. Duckworth, W. L. H., M.A., M.D., Sc.D. Elliott, C. A., M.A., Tutor. Mills, W. H., M.A., F.R.S. Quiller-Couch, Prof. SirArthur T., M.A.

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Manning, B. L., M.A.
Pars, L. A., M.A.
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Morshead, O. F., D.S.O., M.A.

King, W. B. R., O.B.E., M.A. Clark, Rev. F. H. H., M.A. Richards, I. A., M.A. Turner, F. McD. C., M.A. Scott, F. R. F., M.A., Tutor. Piccoli, Prof. R., M.A. Verblunsky, S., M.A. Keilin, D., M.A., F.R.S.

Pembroke College. Founded 1347. Master—A. Hutchinson, O.B.E., M.A., F.R.S. Fellows:

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Queens' College. Founded 1448. Gray, Rev. J. H., M.A. Munro, A., M.A., Bursar. Wood, Rev. C. T., M.A., B.D., Dean. Cook, A. B., M.A., Litt.D.

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St. Catharine's College. Founded 1473. Master—F. M. Rushmore, M.A., J.P. Fellows:

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Redman, R. O., Ph.D.

Gatty, H. W. P., B.A.

Bateson, G., M.A.

Robson, H. C., M.A. Mayall, R. H. D., M.A. McNeile, Rev. A. H., M.A., D.D. Pope, Prof. Sir William J., K.B.E., M.A., F.R.S. Knox-Shaw, T., M.A. Hackforth, R., M.A. Wilson, Prof. C. T. R., M.A., F.R.S.

Smith, Rev. B. T. D., M.A., Tutor. Passant, E. J., M.A. Davenport, A. H., M.A. Green, H. L. H. H., M.A. Ratcliffe, J. A., M.A. Robinson, E. A. G., M.A. Welchman, W. G., M.A. (Research Fellow).

Kirkpatrick, Very Rev. A. F., M.A., Boughey, Rev. A. H. F., M.A. Glazebrook, Sir Richard T., K.C.B., M.A., F.R.S. Frazer, Sir James G., O.M., M.A., Litt.D., F.B.A., F.R.S. Parry, Rev. R. St. J., M.A., D.D. Duff, J. D., M.A.

TRINITY COLLEGE. Founded 1546. Master—Sir Joseph J. Thomson, O.M., M.A., LL.D., Sc.D., Ph.D., F.R.S. (Prof. of Physics). Fellows: Whitehead, A. N., M.A., Sc.D., F.R.S. Bevan, Prof. A. A., M.A., F.B.A. Dampier, Sir W. C. D., M.A., Sc.D., F.R.S. Capstick, J. W., O.B.E., M.A. Innes, H. McL., M.A. Fletcher, Sir Walter M., K.B.E., C.B., M.A., M.D., Sc.D., F.R.S. Cornford, Prof. F. M., M.A.

Harrison, E., M.A. Laurence, R. V., C.V.O., M.A. Lapsley, G. T., M.A. Winstanley, D. A., M.A. Dykes, F. J., M.A., Tutor. Eddington, Prof. Sir A. S., M.A., D.Sc., F.R.S. Littlewood, Prof. J. E., M.A., F.R.S. Newall, Prof. H. F., M.A., F.R.S. Hollond, H. A., D.S.O., O.B.E., M.A., LL.M. Robertson, Prof. D. S., M.A. Hopkins, Prof. Sir F. Gowland, M.A., Housman, Prof. A. E., M.A. Simpson, Rev. F. A., M.A. Tennant, Rev. F. R., M.A., D.D. Butler, J. R. M., M.V.O., O.B.E., M.A., Tutor. Adrian, E. D., M.A., M.D., F.R.S. Fowler, R. H., M.A., F.R.S. Robertson, D. H., M.A. Burnaby, J., M.A., Tutor. Stewart, Rev. H. F., M.A., D.D. Rutherford, Prof. Lord, O.M., M.A., F.R.S. Taylor, G. I., M.C., M.A., F.R.S. Nicholas, T. C., O.B.E., M.A. Pollard, S., M.A. Aston, F. W., Sc.D., F.R.S. Lenox-Conyngham, Sir Gerald P., M.A., F.R.S. Ellis, C. D., Ph.D. Pearson, Prof. A. C., Litt.D. Kitson-Clark, G. S. R., M.A.

Broad, C. D., M.A., Litt.D. Roughton, F. J. W., M.A., Ph.D. Dean, W. R., M.A. Moore, Prof. G. E., M.A., Litt.D. Gow, A. S. F., M.A., Tutor. Duff, P. W., M.A. Kapitza, P., Ph.D. Burkitt, Prof. F. C., D.D., F.B.A. Higgins, Prof. A. P., C.B.E., LL.D. Nicholson, Prof. R. A., Litt.D., F.B.A. Rattenbury, R. M., M.A. Trevelyan, Prof. G. M., O.M., M.A. Sandbach, F. H., M.A. Winnington-Ingram, R. P., M.A. de Bruyne, N. A., M.A., Ph.D. Edge, W. L., M.A. Pantin, C. F. A., M.A. Black, M., M.A. Feather, N., Ph.D. Gaunt, J. A., M.A. Ursell, H. D., B.A. Evennett, H. O., M.A. Knight, A. H. J., M.A. Brunyate, J. W., M.A. Gray, L. H., Ph.D. Paley, R. E. A. C., B.A. Du Val, P., Ph.D. Besicovitch, A. S., M.A. Wittgenstein, L., Ph.D. Mann, F. G., Ph.D. Hardy, Prof. G. H., M.A. Young, L. C., B.A. Coxeter, H. S. M., B.A. Hamilton, W., B.A.

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Master-Rev. G. E. Newsom, M.A.

Perrett, G. B., M.A., Bursar. Durrant, P. J., M.A., Ph.D. Blyth, Rev. A. C., M.A. Murray, J. O. F., M.A., D.D. Woodward, F. H., B.A.

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Bursar—F. M. Smith, M.A. Secy.—M. Clover, M.A. Junior Bursar—K. M. Robertson, M.A. Librarian—H. I. McMorran, M.A. Secretary to the

Mistress-K. S. Chambers.

Newnham College. Founded 1871. Principal—Miss J. P. Strachey, M.A.

Tutors—E. M. Chrystal, M.A. (Sidgwick Hall); A. B. Dale, M.A. (Old Hall);

Mrs. Palmer, M.A. (Peile Hall); M. Steele Smith, M.A. (Clough Hall).

Other Lectrs.: L. M. Swain, M.A. (Maths.); J. Toynbee, M.A. (Classics); G. L. Elles, D.Sc., T.C.D. (Geol.); A. C. Davies, D.Sc. Lond. (Physics); H. J. Pybus, M.A. Ox. (Hist.); E. M. Butler, M.A. (Mod. Langs.); E. E. H. Welsford, M.A. (English); Mrs. Hollond, Ph.D. Columbia (Econ.). Bursar—Mrs. Lacy. Registrar of the Roll—M. Steele Smith.

## GENERAL INFORMATION

The legislative and executive authority of the Univ. is vested in the Regent House, which comprises those Univ. Officers, Fellows of Colls., and others, who are concerned with its teaching and administrative work. A meeting

of the Regent House is called a Congregation.

There is a right of appeal against a decision of the Regent House, on the motion of at least one-third of its members, to the Senate, which consists of graduates of at least seven years' standing from their first term of residence, who have taken a degree of Doctor or Master, or the degree of Bachelor of Divinity. In order to be successful an appeal must be sustained by a statutably prescribed majority. The Senate elects the Chancellor and certain other officers, confers degrees, and holds meetings for the discussion of proposals.

Changes of statute can be made by the Univ. with the approval of the Privy

Council, and Parliament.

Many executive duties, and the duty of sanctioning the submission of resolutions (called *Graces*) to a Congregation, are entrusted to the *Council of the Senate*, which is elected by the Regent House.

The titular presiding officer at a Congregation, and the Chairman of the Council, is the Chancellor, who is by custom a non-resident distinguished in public life. His duties are in fact performed by the Vice-Chancellor, who is a Head of a College, appointed annually, in theory by the Regent House, in practice by the Council. It is customary for the Vice-Chancellorship not to be held for more than two years in succession by one person.

There are numerous Boards and Syndicates for dealing with the various branches of University business: the most important of them are the General Board of the Faculties, whose duty it is to advise the Univ. as to educational policy and to supervise and co-ordinate the work of the Faculties, and the Financial Board, whose duty it is to supervise the finance of all spending departments.

There are twenty Faculties, a Faculty being a body of teachers in a subject or group of subjects. The organization of teaching, research, and examinations in the various subjects is in the hands of the several Faculty Boards, subject to the control of the General Board. A Faculty Board is in part composed of members elected by the Faculty. Some of the Faculties are divided into Departments, under a Head, generally a Professor, who is responsible to the Faculty Board for the management of his Department.

The INCOME of the Univ. is derived from the endowments of specific posts, from general endowment (though to a small extent only), from the fees of students, from the statutable contributions of Colls., and from a Treasury Grant.

DISCIPLINE outside the walls of the Colls. is maintained by the Proctors.

The Univ. Teaching officers are the Professors, Readers, Univ. Lecturers, and Univ. Demonstrators. They, as well as most of the administrative officers, are required to join in the Federated Superannuation Scheme for Univs. The retiring age is 65, but 60 for women Univ. Lecturers.

The Colleges are self-governing corporate bodies distinct from the Univ., owning and managing their separate property, the corporators being the Head and Fellows. Their powers are, however, limited by their Statutes, which cannot be altered by them without notice to the Univ. and approval by the Privy Council. The functions of the Colls. in regard to students are to provide lodging, corporate life, and personal tuition, while the function of the Univ. is to provide public instruction by means of lectures and demonstrations, examinations leading to degrees, and facilities for research. The affairs of the Colls. are, however, closely interwoven with those of the Univ. Most of the Fellows of Colls. are Univ. officers, indeed the Statutes require that a certain proportion of the Fellowships of each Coll. shall be held by Univ. officers. And each Coll. is required by Statute to contribute a certain fraction of its income to the funds of the Univ., the scale of contribution being graduated according to the wealth of the College.

The Colls. also maintain Fellowships for the furtherance of research, and a large number of Scholarships. The title of scholar is awarded on purely intellectual grounds, but, as at Oxford, no Coll. emolument other than an allowance for rooms is paid to an undergraduate scholar unless he satisfies the Coll. that his circumstances justify the payment.

Non-Collegiate Students reside in licensed lodgings or in "Houses" recognized by the Non-Collegiate Students' Board. Such students may, by

becoming members of Fitzwilliam House, obtain opportunities for taking part in communal life (dining in Hall, belonging to athletic clubs, etc.) similar to those enjoyed by members of Colleges.

Women Students. Subject to the condition that the joint number of women students receiving instruction in the Univ. shall not exceed five hundred, the students of the women's Colls. (Girton and Newnham) are admitted to instruction and examinations in the Univ. and to the titles of degrees, including research degrees. Women who have received, or are qualified to receive, titles of degrees share with men graduates, under the Representation of the People Acts 1918 to 1928, the privilege of voting for the election of the two Burgesses who represent the Univ. in the House of Commons. Women are eligible for all Univ. teaching offices and for membership of Faculties and Faculty Boards, but cannot become members of the Senate or Regent House. From 1872 women were informally admitted to Tripos examns. in the Univ., and from 1881 have been formally admitted to the Previous examn., the Tripos examns., and certain examns, in Med. and Music. They were subsequently admitted to the courses and examns. for the Diplomas in Agric., Horticulture, Forestry, Geog., and in Education. In Oct. 1921 the Grace admitting them to titular degrees was passed. Under the New Statutes in Oct. 1926 women became eligible for all Univ. teaching offices, and in the following year were enabled to compete on the same footing as men for Univ. Studentships, Scholarships, and Prizes, except where specifically excluded.

ADMISSION. To become an undergraduate member of the Univ. a person must first be admitted either as a member of a College or as a Non-Collegiate student. No person except Research Students (see p. 59) and certain others may be matriculated who has not passed or been exempted from the Previous Examn. (see Appendix XX.).

For admission to a College or as a Non-Collegiate student application should be made to the proper officer: the Tutor for Admissions, Christ's; the Senior Tutor, Gonville and Caius, St. John's, Cath., Down.; the Tutor, Clare, Corp., Pet., Trin. H.; one of the Tutors, Trin.; the Provost or Tutor, King's; the President, Queens'; the Master, Emm., Jesus, Magd., Pem., Sid., Sel.; the Censor, Fitzwilliam House (Non-Coll. students); the Secretary, Girton; the Principal, Newnham. It is advisable to apply at least 12 mos. beforehand.

As regards Dominion, Colonial, and Foreign students, see Appendix XXI.

ADMISSION TO ADVANCED STANDING. The following may be admitted as Affiliated Students: (a) approved graduates of Associated Institutions; \* (b) certain adult students recommended by the Board of Extra-mural Studies; (c) certain other students on a Grace proposed by the Council of the Senate. An Affiliated Student is entitled to (1) be exempt from the Previous Examn.; (2) reckon the first term kept by residence as the 2nd, 3rd, or 4th term for the purposes of certain provisions respecting the standing of candidates for (a) Tripos examns., or for degrees in Law or Music, and (b) degrees other than the Ordinary B.A. Degree or Degrees of M.Sc., M.Litt., and Ph.D.; (3) secure such a degree in certain circumstances on one part or section of a divided Tripos.

Incorporation. Students who before admission as members of this Univ. have kept terms by bona fide residence at Ox. or Dub. (Trinity College) are, subject to certain provisos, allowed terms corresponding to those which they have so kept; a graduate of Ox. or Dub. (Trinity College) who took a degree or degrees after having duly qualified himself therefor not only by having passed the examns., etc., required, but by having kept his terms by

<sup>\*</sup> List in Appendix XXI.

residence in his own Univ., may be admitted on certain conditions to the same degree or degrees in Camb. Women graduates of Ox. or Dub. (Trinity College) may be admitted by incorporation to the title of the same degree or degrees in Camb.

Intercollegiate Indian Students Committee: Secy., R. B. Whitehead, M.A., 22 Fitzwilliam St.

TERMS. In order that a term may be counted towards qualifying for a degree, a student must reside in Cambridge (i.e. within a circle of  $2\frac{1}{2}$  miles' radius from Gt. St. Mary's Church) during three-fourths of the term. Full terms begin: 1931-32—Oct. 7, Jan. 12, Apr. 19; 1932-33—Oct. 7, Jan. 16, Apr. 19; end: 1931-32—Dec. 5, Mar. 12, June 10; 1932-33—Dec. 5, Mar. 16, June 10.

DEGREES. B.A., M.A., M.Litt., Litt.D.; M.Sc., Sc.D.; B.D., D.D.: LL.B., LL.M., LL.D.; M.B. and B.Chir., M.Chir., M.D.; Mus.B., Mus.M., Mus.D.; Ph.D.

ARTS. The qualifications for the B.A. are: (i.) 9 terms' residence; (ii.) passing or being exempted from the *Previous Examn*.; (iii.) passing the examns. for the Ordinary Degree or a Tripos examn, or examns.

Exemption from (i.) to the extent of 3 terms can be obtained by students entitled to the privileges of affiliation (v. supra).

(ii.) The *Previous Examn*. includes Latin or Greek, one other language, Maths., and English. Subject to certain provisos, natives of Asia or Africa who are not of European parentage may substitute papers in Arabic, Chinese, Sansk., or Pali for the Latin papers. For details, see Appendix XX.

Exemption from (ii.) can be obtained by students who hold certain certifs. granted by various Univs. of the U.K., by the Scottish Education Dept., or by the Ministry of Education, Northern Ireland, or by certain Australasian, S. African, and American authorities (v. App. XXI.); such exemption is also granted to students entitled to the privileges of Affiliation, and to certain adult students recommended by the Board of Extra-mural Studies.

As regards (iii.), the scheme of examns. for the Ordinary B.A. is under revision: for the present the degree is obtained by qualifying in 6 subjects, of which 3 at least must be "Principal" and r at least must be chosen from each of 2 Groups. The Principal Subjects are—in Group I.: Bible, Church Hist., Engl., Gk., Lat., Fr., Ital., Span., Ger., Rus., Geog., Hist. I., Hist. II., Econ., Econ. Hist. and Soc. Insts., Psych., Law I., Law II., Music, Mily. Subjects I., History of Art; in Group II.: Maths., Physics, Chem., Applied Chem., Organ. Chem., Metal., Bot., Zool., Physiol, Geol., Geog., Engin. I., Engin. III., Mily. Subjects II.

Students of Agriculture and allied subjects, or of Architecture, may proceed to the Ordinary B.A. Degree by means of certain courses dealing with their scientific and practical sides, and including also prescribed literary training.

The Honours B.A. is obtained by passing in one or more of the following Triposes: Archæological and Anthropological, Classical, Economics, English, Geog., Hist., Law, Maths., Mech. Sciences, Mod. and Med. Langs., Mor. Scs., Nat. Scs., Oriental Langs., Theol.

A Bachelor may be admitted Master of Arts at the end of six years from the end of his 1st term, provided that not less than 2 yrs. have elapsed from his admission as B.A.

DIVINITY. A graduate proceeds to the B.D. when he is of not less than five years' standing from his first degree, either (1) by submitting an original dissertation composed by himself on some subject connected with Biblical

Criticism, Exegesis, or History, or with the Nature and Grounds of Christian Belief, or with Dogmatic Theology, or with the study of other Religions in relation to the Christian Religion, or with Ecclesiastical History, Literature, or Antiquities, or with the Philosophy of Religion, or (2) by specifying his published works on one or more of these subjects. He is required to satisfy the Degree Committee, either by his dissertation, etc., or otherwise, that he possesses a competent knowledge of Christian Theology. A B.D. of 3 yrs.' standing proceeds to the D.D. by submitting published works or a printed dissertation on the same subjects as those for the B.D.

Law. A student who has kept 9 terms and obtained Hons. in both parts of the Law Tripos, or Hons. in some other Tripos and subsequently Hons. in either part of the Law Tripos, is entitled to proceed to the degree of B.A. To qualify for the LL.B. it is necessary to pass the LL.B. examn. after having kept 9 terms and obtained hons. in Pt. I. or Pt. II. of the Law Tripos, or passed in either Part at the hons. standard, or taken the degree of B.A. and qualified for practice as a barrister or solicitor in England or Ireland, or as an advocate or law agent in Scotland. (For an Affiliated Student these requirements may be modified.) A LL.B. may, not less than 6 years after the end of his 1st term and not less than 2 years since his admission, ask leave to submit a dissertation on some branch of law or of the hist, or philosophy of law, and, if such dissertation is approved, he may be admitted to the Degree of LL.M. Any graduate may be admitted LL.D., not less than 8 yrs. after admission to his 1st degree, if he has published one or more original contributions, approved for the purpose, to the advancement of the science or study of Law.

MEDICINE. The qualifications for the M.B. and B.Chir. are: (i.) 9 terms' residence; (ii.) passing (or exemption from) the Previous Examn. (v. supra); (iii.) 5 yrs.' Med. study; (iv.) passing in due order 3 examns. and (for the M.B. degree) presenting an approved thesis. Admission to the 2nd M.B. examn, is conditnl. on proof of diligent attendance on prescribed courses of lectures and practical work. Admission to the 3rd M.B. is conditnl, on proof of 3 yrs. of hospl. practice, 5 yrs.' Med. study, and diligent attendance on prescribed courses of instruction and practical work. A M.B. in the 9th term after admission and a M.A. in the 12th after admission may be admitted M.D. on submission of a thesis or dissertation, but the M.A. must have attended lectures and hospl. practice and passed examns, as required for the M.B. A candidate for the M.Chir. Degree must pass an examn. to which, if Master of Arts, he may be admitted after he has become legally qualified to practise Surgery. A candidate who is not a Master of Arts may be admitted to the examn. 2 years after completing all the requirements for the B.Chir. Degree; but 3 years must have elapsed since he was admitted B.Chir. before admission to the M.Chir. Degree. Addenbrooke's Hospl., containing over 200 beds and large out-patient depts., is available for clinics. Overseas examns. exempting from the 1st M.B.: 1st. examn. for B.Sc. in Agr. of Univ. of S. Africa (subject for subject); rst yr. examn. for M.B. and Ch.B. or B.Sc. of Univ. of Witwatersrand; 1st examn. for med. degrees in Univ. of Adel., Melb., or Syd., or 1st examn, in Science in Physics, Chem., and Biol. in Univ. of Queensland, W. Aust., or Tasm.

Music. The qualifications for the Mus.B. include (i.) 9 terms' residence; (ii.) passing (or exemption from) the *Previous* examn.; (iii.) passing an examn. in two parts whereof the first may not be taken before the 2nd term, nor the 2nd before the 8th term. The Mus.M. may be taken after at least 3 yrs. have elapsed since admission as Mus.B. and after passing the prescribed examn. Graduates of not less than 8 years' standing from admission to their first.

degree who have given proof of distinction in musical composition may be candidates for the Mus.D.

The Sc.D. and LITT.D. Either degree is open to a graduate of not less than 8 years' standing from admission to his first degree. These degrees are granted in consideration of original contributions to the advancement of Science or Learning.

DIPLOMAS. In addition to degrees, which are for the most part conferred only on its own members, the Univ. grants 2 Diplomas which are open to other persons—in Geog., and in Med. Radiology and Electrology; and 7 which are restricted, or almost restricted, to members of the Univ.—Agric. Sc., Anthrop., Architect., Class. Archæol., Education, Forestry, and Oriental Langs., the diplomas in Anthrop. and Orient. Langs. being open to non-members in certain exceptional circumstances only. Cortificates of competent knowledge of certain foreign langs., open to members of the Univ. only, are awarded. A Divinity Testimonium is granted on proof of diligent attendance at 6 courses of lectures.

The Joint Coal-mining Diploma of the Univs. of Cambridge and Birmingham enables Cambridge graduates in Engineering to shorten by one year the period of training at Birmingham otherwise required. It is approved by the Board of Trade.

The Diploma in Anthropology may be obtained after residence for one term only by Officers of any of the Public Services of the Empire, not ordinarily resident in the British Isles, having exceptional qualifications.

The Univ. makes provision for training candidates for the Higher Civil Services; Probationary Vice-Consuls; Indian Civil Service selected candidates; candidates for administrative appointments in Tropical Africa and other branches of the Civil Service, and candidates for service under the Govt. of the Sudan. To meet the wants of Civil Service candidates a series of lectures supplementary to the courses for regular Tripos candidates has been arranged by the Board of I.C.S. Studies, and by a Committee of Associated Colls. Detailed information may be obtained from the Director of Civil Service Studies, appointed by this Committee (C. J. B. Gaskoin, M.A., Fitzwilliam House), and from H. A. Roberts, M.A., Univ. Offices, St. Andrew's St., who is Secy. to the Board of I.C.S. Studies, Foreign Service Students' Committee, and Appointments Board.

A system of MILITARY INSTRUCTION has also been organized by the Univ. The Board of Millit. Studies (Secy.—Lt.-Col. G. J. Hornsby Wright, D.S.O., M.A. Emm.) are in direct communication with the War Office and responsible for the nomination of Camb. Univ. candidates for Regular commissions in H.M. Forces. See Appendix I.

AVIATION. Official recognition has also been given to the University Air Squadron. The Squadron, membership of which is strictly limited, is primarily a technical organization affiliated to the University and under the direction of the Air Ministry; but practical flying instruction is also given to members. See Appendix I. Other students, with the permission of their parents or guardians and also of their Tutors, are permitted to fly, under certain restrictions, as members of a Civil Flying Club.

The Training of Teachers is under the management of the Teachers Training Syndicate, established in 1878 (Secy.—F. E. E. Harvey, M.A.; address—Warkworth House).

Examns. for the Certificate of Proficiency, held in June and Dec., are open to students of certain colleges, and to graduate teachers who have had at least a year's experience in an approved Secondary School, if their attainments are satisfactory.

Students of the *University Training College* (Principal—C. Fox, M.A. Chr.; address—Warkworth House) devote their first 3 yrs. to reading for the B.A. degree, the 4th to professional training. Several scholarships are offered to intending schoolmasters who have been Bursars or Student Teachers. Students who have not previously been attached to the college may also take a postgraduate course of training.

There is also the Cambridge Training College for Women (Postgraduate). Principal—Miss M. H. Wood, M.A. Camb. and Lond., Litt.D. T.C.D., which admits women, who have graduated at any British Univ., to a course of professional training in preparation for work in secondary schools. Recognized students receive a grant from the Board of Education, and graduates in receipt of the four years' grant at any Univ. may be transferred for their 4th year to this College. Total number of students, about 50.

Cambridge graduates are trained for Holy Orders in the Church of England at Ridley Hall, founded in 1879 (Principal—Rev. J. P. S. R. Gibson, M.A., F.I.A. Sid. Suss.); or at Westeott House, founded in 1881 (Principal—Rev. Canon B. K. Cunningham, O.B.E., M.A. Trin.). Other theological colleges recognized by the Univ. as Houses of Residence for students: Westminster Coll., founded 1844 (Principal—Rev. J. Oman, M.A. Qu., D.Phil., and D.D. Edin. and Ox., Presbyterian); Cheshunt Coll., founded 1768 (President—Rev. S. Cave, D.D. Lond., mainly Congregational); St. Edmund's House, founded in 1896 (Rector—Rev. C. L. Waring, M.A. Chr., Roman Catholic); and Wesley House, founded 1924 (Principal—Rev. H. M. Hughes, M.A. Jes., D.D. Lond.). Cheshunt and Westminster Colleges were moved from Cheshunt and London in 1905 and 1899 respectively.

RESEARCH STUDENTS. Each application for admission must be made to the Secretary, and accompanied by (i.) a diploma or other certif. of graduation at a Univ.; (ii.) a statement as to the course of research which the applicant desires to pursue, together with evidence of qualification, attainments, and previous study; (iii.) a statement of the degree, if any, for which the applicant wishes to be a candidate; (iv.) a certif. or declaration of the applicant's age at the date of application. In exceptional cases requirement No. (i.) may be dispensed with. The application is not granted unless it appears (a) that the course of research can conveniently be pursued within the Univ., and (b) that the applicant has produced adequate evidence that he is qualified to enter upon the proposed course. Before admission he is required to become a member of a College, or a Non-Collegiate student.

Secretary of the Board of Research Studies: R. E. Priestley, M.A. Clare. Correspondence should be addressed to the Secretary at the Univ. Registry, Cambridge.

A Research student pursues his course under direction and supervision, prescribed by the Degree Committee of the Faculty concerned. If he should wish to obtain a degree elsewhere he may, after he has pursued his studies in the Univ. for not less than 2 terms with regularity and industry, receive a Certificate to that effect signed by his supervisor and by the V.C. After a course extending over 2 yrs. and residence in the Univ. for at least 6 terms (Cambridge graduates, 3 terms) after admission as a research student, the M.Sc. or M.Litt. degree may be obtained. For the Ph.D. degree (v. p. 17) 3 yrs. are ordinarily required. One year of the 3-yrs.' course may be remitted if the applicant satisfies the Board of Research Studies that he or she has done at least a yr.'s satisfactory research work before admission to Cambridge Univ. For any degree six terms' residence is essential.

University Scholarships open to graduates number about 57, and are

worth about £5600 p.a. In almost every instance they are open only to persons who have graduated in this Univ., or have kept a certain number of terms. For details see *Students' Handbook* (price 7s. 6d., Univ. Press), which also gives details of *Entrance* Scholarships.

Dominions and Colonial Exhibitions. In view of the difficulties experienced by Dominion and Colonial students in competing for scholarships and exhbns. in the open examn. held each Dec., Trinity Coll. is prepared to consider applications made by Dominion and Colonial Univs. on behalf of their students for the grant of exhbns.; value £40 a yr. either more or less according to holder's financial circumstances. Candidates must apply through the principal authority of their univ. Applications for next award must reach the Senior Tutor, Trinity Coll. by July 1, 1932, from whom particulars should be obtained.

EXPENSES. No return. See under "Oxford," p. 237, and the Students' Handbook to Cambridge, 1931-32 (Chap. IV.).

THE UNIVERSITY APPOINTMENTS BOARD is concerned with appointments of all kinds (Secy.—H. A. Roberts, M.A.; Asst. Secs.—O. V. Guy, D.S.O., M.C., M.A.; A. L. Maycock, M.C. M.A. (Education); W. N. C. van Grutten, O.B.E., M.C., M.A. (Engineering); Educational Secy.—R. S. Goodchild, M.A.). Address: University Offices, St. Andrew's St. *Telegrams*—Appointments, Cambridge.

Cambridge University Women's Appointments Board. Secy.—Miss S. Campbell, M.A., 4 Brick Court, Temple, London, E.C.4. Interviews by appointment only.

The University Library contains about 1,250,000 vols., including many early printed books, and over 10,000 MSS. and 195,000 maps. It is entitled under the Copyright Act to a copy of every book published in the U.K., and a large number of foreign books and periodicals are acquired by purchase. It contains, amongst others, the following remarkable collections: Acton library (mediæval, ecclesiastical, and modern history, 60,000 vols.); W. G. Aston's Japanese library; Sir T. Wade's Chinese books; J. W. Clark collection (Cambridge books, pamphlets, papers, etc.). The annual budget is about £19,000.

Each College has a library. Some are interesting survivals of mediæval rooms kept in the state in which they were originally airanged. Among special collections in College libraries are: in Christ's College the Robertson Smith collection of Oriental books, many of which are connected with Semitic literature: in Gonville and Caius College 800 MSS. collected by Wm. Moore, 1653-59, 60 incunabula, heraldic collections of Dr. John Knight (17th cent.), 1300 books and controversial pamphlets of Dr. Wm. Branthwaite (d. 1619), Norfolk and Suffolk topographical and genealogical works; in Girton College small collections of Oriental books, chiefly Sanskrit (Cowell) and Hebrew (Frere—printed catalogue), and Botany books and pamphlets (Ethel Sargant).

In the Arts School in Bene't Street are the Seeley Memorial (works on History and Comparative Politics originally collected by Prof. John Symonds, 1771 to 1807, and added to by his successors), the Bendall (Sanskrit, etc.), and Modern and Mediæval Languages and Moral Sciences departmental libraries. A large library of English and other literature is housed in the English School (Downing St.). The Balfour library in Downing Place contains a large collection of books and periodicals on biological subjects. Here also is the Marshall Library of Economics. Other important departmental collections are in the Museum of Classical Archæology, the Squire Law Library, the Selwyn Divinity School, and the schools of the Natural Sciences. There

is a collection of music in the rooms of the Cambridge Musical Society (Downing St.). The Library of the Philosophical Society maintains a special relation to all the Scientific Depts., and is very rich in sets of Journals and Scientific Transactions.

Museums. (a) Art and Archæology.

The Fitzwilliam Museum (Director-S. C. Cockerell, M.A., Litt.D.) contains a large and valuable collection of paintings, drawings, engravings, Egyptian and Greek antiquities ceramics, coins, illustrated MSS., autographs, early printed books, and music.

The Museum of Classical Archæology (Curator—Prof. A. B. Cook, Litt.D. Qu.) contains a collection of casts illustrating the history of Greek sculpture.

The Museum of Ethnology and Archæology (Curator-L. C. G. Clarke, M.A. Trin. H.) has a large and increasing collection, including Saxon urns and ornaments, casts of Central American monuments, Egyptian stone implements, unique Fijian collections, and numerous others resulting from scientific expeditions by Cambridge men.

(b) Science.

The Museums of Science include museums, laboratories, lecture-rooms, classrooms, and workshops for Agric., Bio-Chem., Bot., Chem., Engin. (including Engine-room, Elasticity, Elec., and Hydraulic Labs., and drawing office), Exper. Physics, Hum. Anat., Ethnol., Forestry, Medicine, Mineralogy, Path., Physiol., Psychol., Zool., and Comp. Anat.

The Museum of Zoology (Supt.—C. F. Cooper, M.A. Trin, H.) includes very complete series of vertebrates and invertebrates, a series of invertebrata from Naples, valuable collection of Polyzoa, extensive collection of marine animals from Pacific and Indian Oceans, and an important collection illustrating heredity, protective resemblance, and mimicry.

The Sedgwick Museum of Geology includes a fine collection of British and foreign building stones lately added to the Economic section.

#### LABORATORIES AND FIELD STATIONS.

The Zoological Laboratory, in addition to providing for the ordinary work of the Dept. and for research, affords peculiar facilities for the study of diseases of animals and of economic entomology.

Low Temperature Station for Research in Bio-Chemistry and Bio-Physics (Director—Sir William B. Hardy, M.A. Cai., F.R.S.). See App. XXIV. A. I. (f). The Botanic Garden (Director-H. Gilbert-Carter, M.B., Ch.B. Edin., M.A.

Trin.).

The Scott Polar Research Institute (Director-Prof. F. Debenham, M.A. Cai.). See App. XXIV. A. (VI.). In addition the following Research Institutes attached to the School of

Agriculture:

Animal Nutrition Institute (Director—F. H. A. Marshall, Sc.D., F.R.S. Chr.). See App. XXIV. A. I. (d).

Plant Breeding Institute (Director-Emer. Prof. Sir R. H. Biffen, M.A., F.R.S. St. Cath.). See App. XXIV. A. I. (a).

Virus Diseases of Potatoes Section (Director-R. N. Salaman, M.D. Trin. H.). Horticultural Research Station (Director-D. Boyes, M.A. Emm.). See App. XXIV. A. I. (b).

Department of Animal Pathology. See App. XXIV. A. I. (c).

Animal Diseases Research Institute (Director—Prof. J. B. Buxton, M.A., F.R.C.V.S., D.V.H.). See App. XXIV. A. I. (c).

Small Animal Breeding Institute (Director-Prof. R. C. Punnett, M.A., F.R.S. Cai.). See App. XXIV. A. I. (d).

The Molteno Institute for Research in Parasitology (Director—D. Keilin, M.A. Magd.). See App. XXIV. A. I. (c).

A School of Pathology was endowed by the Rockefeller Foundation (£133,000) and Ernest Gates (£33,000) in 1924.

The Observatory (Director—Sir A. S. Eddington, M.A. Trin., D.Sc., F.R.S., Plumian Prof. of Astr.), about a mile from Cambridge, has a meridian circle of 8½ in. aperture; the Northumberland equatorial 12 in. aperture; the Sheepshanks photographic equatorial 12½ in.; a number of smaller instruments, and a good library.

The Solar Physics Observatory (Director—Prof. F. J. M. Stratton, D.S.O., M.A. Cai.) standing close to the older Obs. has the Newall telescope (25 in.), McClean cœlostat and spectrograph, Huggins telescopes, etc. The Univ. has taken over charge (for the Govt.) of the Solar Physics Obs. formerly at South Kensington, receiving a grant-in-aid.

The CAMBRIDGE LOCAL EXAMINATIONS, instituted in 1858, are held at 445 centres in the U.K. and 206 Overseas, notably in India, Ceylon, Malaya, W. Indies, and W. Africa. Approx. number of candidates in 1931: Home 13,250, Overseas 15,450. Regns. for the School and Higher School Certificate and Junr. examns. and for Certif. of Proficiency in English (for foreign students), may be obtained from Syndicate Buildings, Cambridge.

University Extension Lectures are delivered and classes in connexion with them held by a staff of about 40 itinerant lecturers in various towns in different parts of England, including places so distant as Southport, Newcastle, Gt. Yarmouth, and Exeter, under a system initiated in Cambridge in 1873. The characteristic features of the method of teaching adopted are (i.) the Lecture presenting the subject in broad outline, (ii.) the Class, held for about an hour before or after the lecture, at which questions are given out by the lectr., (iii.) the essays written on these questions, and (iv.) the examination. The grades of certificates are: Terminal, awarded after a course of ordinarily 12 lectures; Terminal Certificate in Honours implying distinction; Sessional, for courses extending over not more than 2 yrs. and including at least 22 lectures; the Vice-Chancellor's, awarded to students who obtain Terminal or Sessional certifs, satisfying certain conditions and submit a satisfactory essay. A Travelling Library is provided for each course. The work is under the management of the BOARD of EXTRA-MURAL STUDIES, on which there are, in. addition to members of the Senate, representatives of the Local Centres Union and the Workers' Educational Assocn. 52 courses were held in 1930-31. Full particulars can be obtained from the Secy., G. F. Hickson, M.A., Stuart House, Cambridge.

THE SUMMER MEETING (University Extension) is held in Cambridge in alternate years. In 1932 it will be held from about July 28 to Aug. 17; the subject will be "The Contribution of Greece to Modern Life."

Tutorial Classes are arranged in connexion with the Workers' Educational Assocn. They are managed by a Committee appointed by the Board of Extramural Studies, including all the members of the Board nominated by the W.E.A. The Tutorial Classes Summer School is held every year for 3 or 4 weeks.

Publications. The Camb. Univ. Reporter, weekly during term, 3d. a copy, terminal subs. 2s. 6d., or by post 4s. 6d.; Ordinances, 1930 (fresh editions every 3 or 4 yrs.), 15s.; The Students' Handbook, annually in early autumn, 7s. 6d.; Facilities for Study and Research; Compendium of Univ. Regns., 9d.; Statutes of the Univ. and Passages from Acts of Parlt., 5s.; Endowments of the Univ., 1904, 10s. 6d.; Alumni Cantabrigienses, Ed. J. and J. A. Venn (to the year

1751, four volumes), £7: 10s. each vol.; Matricns. and Degrees (a list of all those who have entered the Univ.; 1544-1659, 45s.; 1851-1900, 15s.; 1901-1912, 12s. 6d.); the Calendar, annually (Nov.), 15s.; the Historical Register, 20s.; Historical Register Supplement, 1911-20 and 1921-30, 8s. 6d. each; Index to Tripos Lists, 1748-1910, 10s.; The War List of the Univ. of Cambridge, 1914-1918. 20s.; University Extension: a Survey of Fifty Years, by W. H. Draper, 3s. 6d.; University Ceremonies, by H. P. Stokes, 7s. 6d.; The Cambridge Pocket Diary, annually in Oct., 2s. 6d., with pencil, 3s. 6d. These, and the books mentioned below, Mullinger's and Willis and Clark's, may be had from the Cambridge Univ. Press, Fetter Lane, London, E.C.4, and from all booksellers.

Histories, etc.: (a) Annals of Cambridge, by C. H. Cooper (5 vols.); (b) The Univ. of Cambridge, by J. B. Mullinger (3 vols. to the later 17th cent.); (c) College Histories—Robinson's Series, various authors; Dent's Series—King's, St. John's, Trinity, 2s. each; (d) Cambridge and its Colleges, A. Hamilton Thompson; (e) Cambridge, T. D. Atkinson and J. W. Clark; (f) Architectural History of Cambridge, R. Willis and J. W. Clark, 4 vols; (g) The Charm of Cambridge, by S. C. Roberts.

Magazines (unofficial): The Cambridge Review, the Granta, the Gownsman, the New Cambridge, weekly during term.

#### RECENT LEGISLATION

In 1922 a Royal Commission for Oxford and Cambridge (appointed in 1939) published its report (Cmd. 1588), and in 1923 Parliament established a legislative Commission which was to give effect at Cambridge to the recommendations contained in this report. The statutes made by the Commission, under the chairmanship of Viscount Ullswater, having become operative in 1926, the summary given in the opening paragraphs of the above "General Information" of the principal features of the constitution of the Univ. takes their effect into account.

It will be seen that the legislative and executive functions formerly vested in the Senate (the constitution of which has not been greatly altered) are now exercised by a "Regent House," the composition of which is somewhat similar to that of the former Electoral Roll, the powers of the Senate in most matters being limited to a suspensory veto. The control over teaching appointments previously possessed by Colleges is shared by them with the University, the former retaining the duty of appointing Directors of Studies who superintend the weekly personal instruction of students, with correction of essays and the The fees hitherto paid to the Colleges for lectures are now payable to the University instead; moreover, in several subjects a composition fee has replaced separate fees. Women are eligible to University teaching posts, and therefore to membership of Boards of Faculties, and the Univ. has been enabled to throw scholarships and prizes open to the candidature of women unless the founder has expressly excluded women. The stipends attached to open college entrance scholarships have, as at Oxford, been put on an eleemosynary basis, though the winning of a scholarship will depend, as heretofore, entirely on merit. Admission to a degree is to be by a single act, and the ancient procedure by stages (designation and inauguration, inception and creation) is obsolete.

# THE YEAR 1930-31

Benefactions. The Royal Society, £15,000 for the building and equipment of a laboratory for magnetic and eryogenic research by Dr. Kapitza, a

Messel Prof. of the Society. The Pilgrim Trust, £4000 for the building fund of the Scott Polar Research Institute. An anonymous donation of \$5000 for the department of Colloid Science. The Goldsmiths' Company, £1000 for the equipment of the Metall. Lab. Mr. F. L. Lucas, bequest of half of the residue of his estate. Miss R. M. Clark, a legacy of £100, less Estate Duty, for the Univ. Observatory. Dr. Robert Mond, the endowment of the "Frida Mond Memorial Lectures" in honour of his mother. The Surveyor's Institution, the endowment of 3-yr. and 1-yr. scholarships to be held at Cambridge only. The collection by Dr. R. N. Salaman of £9075 for the endowment of a Readership in Rabbinics.

Buildings. The extension of the Fitzwilliam Museum opened by the Chancellor in June. Work in progress on foundations of the new Univ. Library. The superstructure will probably be begun in the spring of 1932. Sites assigned, under the Rockefeller scheme, for extensions of the Depts. of Agric., Botany, and Physiol., and plans for the buildings are in preparation.

Special Lectures. The Rede Lecture was delivered by Sir J. H. Jeans, M.A. Trin. (subject: "The Mysterious Universe"); three lectures by J. V. Scholderer, M.A. Ox., Sanders Reader in Bibliography (subject: "The Invention of Printing: Facts and Theories"); three lectures by S. Gaselee, C.B.E., Magd. (J. H. Gray Foundation, on: "The Transition from Classical to Medieval Latin Poetry"); a course of lectures by Dr. J. Langmuir, Scott Lectr., on "Fundamental Phenomena in Electrical Discharges of Gases"; the Leslie Stephen Lecture by J. Masefield, Litt.D. Ox., on "Chaucer."

Deaths. 1930: T. W. Dunn, formerly Fellow of Peterhouse, Oct. 7; A. J. Stevens, Sr. Fellow of St. John's, Oct. 23; Rev. J. Carnegie Brown, St. John's, Oct. 23; Rt. Rev. E. H. Pearce, Hon. Fellow of Peterhouse, Oct. 28; J. E. Purvis, Univ. Lectr. in the Fac. of Med., Nov. 1; H. C. Squires, Down, Dec. 12; 1931: W. E. Johnson, Lectr. in Moral Sci., Jan. 14; J. R. Tanner, Fellow and formerly Tutor of St. John's, Jan. 15; A. P. Maudslay, Hon. Fellow of Trin. H., Jan. 22; J. D. H. Dickson, Sr. Fellow, and formerly Tutor of Peterhouse, Feb. 6; Hon. Sir C. A. Parsons, Hon. Fellow of St. John's, Feb. 11; Rev. J. W. E. Conybeare, Trin., Feb. 14; Sir R. C. Temple, Hon. Fellow of Trin. H., Mar. 3; T. M. Francis, Trin., Mar. 6; H. E. Malden, Hon. Fellow of Trin. H., Mar. 16; Rev. J. C. Saunders, Sr. Fellow and formerly Tutor of Down, Mar. 19; C. T. Heycock, Emer. Reader in Metall., June 3; Rev. H. P. Stokes, Hon. Fellow of Corpus, June 16; A. G. Peskett, Sr. Fellow, and formerly President and Tutor of Magd., July 26; Viscount Knutsford, Hon. Fellow of Trin. H., July 27; W. E. Dixon, Reader in Pharmacol., Aug. 16; M. M. Pattison Muir, Sr. Fellow of Caius, Sept. 2.

Honorary Degrees. LL.D.—José Evaristo Uriburu, Ambassador Extraord. and Minister Plenipotentiary of the Argentine Republic; Rt. Hon. Edward Algernon FitzRoy, Speaker of the House of Commons; Viscount Lee of Fareham; Baron Irwin of Kirby Underdale; Rt. Hon. Lord Hugh Richard Heathcote Cecil, Senior Burgess of the Univ. of Oxford; Andrew William Mellon, Secretary of the Treasury of the U.S.A.; Prof. Enrico Catelani, Padua; James Brown Scott, Director of the Dept. of International Law of the Carnegie Foundation for the Advancement of Perpetual Peace; Nicolas Socrates Politis, Minister of the Hellenic Republic at Paris. Litt.D.—John Masefield, Poet Laureate; Prof. Mikhail Ivanovich Rostovtzeff, Yale; George Francis Hill, Director and Principal Librarian of the British Museum; Augustus Moore Daniel, Trin., Director of the National Gallery. Sc.D.—Prof. Pierre Augustin Clément Dangeard, Sorbonne; Prof. John Scott Haldane,

Birmingham. M.A.—Patrick Desmond Fitzgerald Murray; Ebenezer Everett.

APPOINTMENTS BOARD. In 1930, 501 appointments were obtained on the introduction of the Board. These included: educational, 173; manufacturing and technical, 102; administrative posts in commerce and industry, 104; Government departments, mainly scientific, 13; colonial administrative, 45; agriculture and forestry, 34; Indian and Colonial Railways, P.W.D. and Survey, 6; journalism and publicity, 1; railway traffic, 1; articled clerkships, 9; medical, 4; miscellaneous, 9.

Local Examns. were held in December 1930 at 391 centres, including 49 in India, 30 in Ceylon, 33 in Straits Settlements and Malay States, 4 in China, 20 in Africa, 22 in W. Indies, and others in Central and S. America, the Bahamas, Bermuda, British Arabia, Fiji, Gibraltar, Iraq, Italy, Mauritius, Sarawak, Seychelles, and Switzerland. The number of candidates was 17,265. In July 1931 the examns. were held in 389 centres, of which 30 were overseas, and the number of candidates was 10,728.

STUDENTS (excluding 86 men and 24 women not members of the Univ.) whose homes are in the British Isles: men 4624, women 452; not in the British Isles but within the British Empire: m. 334, w. 17; in foreign countries, m. 162, w. 10. Total: full-time, 5709.

RESEARCH STUDENTS, June 1931, 261, of whom 110 were Cambridge graduates. Their distribution among the various fields of research was as follows: Aeronautics 1, Agr. 17, Anthropol. 6, Archæol. 2, Astrophysics 1, Biochem. 22, Biophysics 1, Botany 11, Classics 6, Crystallography 2, Divinity 3, Econ. 7, Eng. 10, Engl. 13, Entomol. 2, Fine Arts 1, Geol. 12, Hist. 18, Law 1, Maths. 26, Metall. 1, Mineral. 1, Mod. Langs. 11, Moral Sc. 2, Organic Chem. 12, Oriental Langs. 2, Parasitol. 2, Pathol. 1, Pharmacol. 1, Phys. Chem. 18, Physics 32, Physiol. 2, Psychol. 6, Zool. 8.

BOARD OF EXTRA-MURAL STUDIES. Local Lectures (Univ. Extension): 47 courses of 12 lectures, 5 of 6 lectures. Tutorial Classes: 15 first-yr., 11 second-yr., 3 third-yr., 1 fourth-yr. The fifth Vacation Course for Foreign Students was held July 23-Aug. 19, and was attended by 270 persons, from 26 nationalities. A course on Geography was also held July 30-Aug. 19, and was attended by 59 students chiefly from the British Isles. In addition there was a Summer Session in Hist. and Engl. Lit. which was held for 4 wks., July 23-Aug. 19, and was attended by 74 persons; these were mostly from the U.S.A. The Tutorial Classes Summer School was held for 4 wks. in July and Aug., and was attended by 65 students. 11 extra-mural students were resident in Cambridge for the year (4 being no longer under the direction of the Board). The Cambridge Bulletin of Extra-mural Studies was published once, in the Michaelmas Term: a supplement containing a list of classes and courses was issued in the Lent Term.

Students attending Tutorial Classes: men 329, women 301; Local Lecture (Extension Courses), 5319.

Degrees. LL.D., r; M.D., 24; Sc.D., 7; Litt.D., 4; Mus.D., r; Ph.D., 54; M.Chir., 4; M.A., 713; LL.M., r; M.Sc., 3; M.Litt., 2; M.B., 59; B.Chir., 71; LL.B., 32; Mus.B., 6; B.A., 1490. Titles of Degrees conferred on Women during the academical year: M.D., 1; Litt.D., r; Ph.D., 3; M.A., 81; M.Litt., 2; M.B., 2; B.Chir., 3; B.A., 163.

### UNIVERSITY OF DURHAM

- VISITOR-THE LORD BISHOP OF DURHAM.
- CHANCELLOR—The Most Honourable The Marquess of Londonderry, K.G., P.C., M.V.O., LL.D.
- VICE-CHANCELLOR-Sir WILLIAM S. MARRIS, K.C.S.I., K.C.I.E., D.Litt.
- Pro-Vice-Chancellors—The Rev. Canon H. Ellershaw, M.A.; Sir Robert A. Bolam, O.B.E., M.D., LL.D., F.R.C.P.; J. S. G. Pemberton, M.A., D.C.L.
- Deans of Faculties—Theology: Rev. E. G. Pace, D.D.; Arts and Letters: B. Colgrave, M.A.; Medicine: S. McDonald, M.D.; Science: H. V. A. Briscoe, D.Sc.; Applied Science: C. J. Hawkes M.Sc.; Music: E. C. Bairstow, D.Mus.; Commerce: W. Atkinson, M.A.; Law: A. Robinson, M.A., D.C.L.
- Proctors—G. R. Goldsbrough, D.Sc., F.R.S.; J. L. Burchnall, M.C., M.A.
- REGISTRAR—H. G. THEODOSIUS, M.A., B. ès L., 38 North Bailey. LIBRARIAN—E. V. STOCKS, M.A.

#### AFFILIATED AND ASSOCIATED COLLEGES

- A. Colleges in which students may matriculate, keep terms, and pass examns., and so qualify without coming to England for the B.A., M.A., B.D., D.D., B.C.L., and D.C.L. degrees:
- Codrington College, Barbados. Trustees (under the will of Christopher Codrington, who died in 1710)—The Society for the Propagation of the Gospel; Visitor—The Lord Bishop of Barbados; Principal—Rev. J. C. Wippell, M.A., B.D.; Prof. of Theology—Rev. W. E. Hopkins, M.A.; Prof. of Classics—W. W. C. Dunlop, M.A.; Prof. of Medicine—F. W. Greaves, M.B., D.P.H.
- FOURAH BAY COLLEGE, SIERRA LEONE. Founded in 1827 by the Church Missionary Society. In 1918 the Wesleyan Missionary Society became associated with the C.M.S. in the control of the College. Visitor—The Bishop of Sierra Leone; Deputy Visitors—The Chief Justice, the Colonial Secretary; Principal—J. L. C. Horstead, M.A.; Senior Tutor—T. S. Johnson, M.A., B.D.; 4 Tutors and r Occasional Lecturer.
- B. SUNDERLAND TECHNICAL COLLEGE. Founded in 1902. By the Durham University Act of 1908 this College was to be affiliated in the Schools of Engineering and Electrical Engineering when the equipment and staff should be deemed adequate. The affiliation took place in 1930, and in 1931 certain members of the staff were accorded the status of "Recognized Teachers" in the University. Principal—V. A. Mundella, M.A., B.Sc.
  - C. The following associated Theological Colleges:
- St. Aidan's; St. Andrew's (Oyo, Nigeria); St. Augustine's; the Bible Churchmen's Missionary College (Clifton); Burgh; Chichester; Dorchester; Edinburgh; Highbury; Jamaica; St. John's (Armidale, N.S.W.); Lichfield; Lincoln; Queen's (St. John's, Newfoundland); Salisbury; Selwyn (Dunedin); Warminster; Bishop Wilson School (Isle of Man); Queen's Coll., Birmingham.

Students may take in these Colleges courses extending over 3 years, which qualify for the Lic.Theol. Nine terms kept in one of these Colleges, after passing the matricn. examn, may be counted in lieu of 6 of the terms required for the B.A. degree in the case of a student who obtains the Lic.Theol.

### GENERAL INFORMATION

The Univ. was established by Act of Parliament in 1832 and reconstituted in two divisions in 1908. The College of Medicine, founded in 1832, became associated with the Univ. first in 1852, and more closely, as "The University of Durham College of Medicine," in 1870. Armstrong College was founded in 1871 as the Durham College of Physical Science, and assumed its present name in 1904. The Vice-Chancellorship is held in rotation by a representative of the Durham Colleges, College of Medicine, and Armstrong College for 2 years.

The Univ. has no teaching staff apart from those of the Durham Colls., the Coll. of Medicine, and Armstrong Coll. The Council of the Durham Colleges, the Coll. of Medicine, and Armstrong Coll. have respectively full power and authority to regulate teaching and discipline, and to provide for the appointment of all their teachers and other officers.

LIBRARIES. See under the Colleges.

MATRICULATION. See Appendix XX.

Admission of Students from Overseas. The Inter. Examn. of Indian Univs., the matrice. examns. of Sydney and the S. African Univs. and degrees in Arts of all Univs. of the British Empire are accepted. See also Appendix XXI.

Degrees. B.A., B.Arch., M.A., B.Litt. (obsolete), M.Litt., D.Litt.; B.Sc., M.Sc., D.Sc.; B.D., D.D.; B.C.L., D.C.L., LL.B.; M.B., B.S., M.D., M.S., D.Ch.; B.Hy., D.Hy.; B.D.S., M.D.S.; B.Mus., D.Mus.; B.Com., M.Com.; Ph.D; M.Ed.

Diplomas in Foreign Langs., Arabic, Theol., Psychiatry, Teaching, Public Health; L.D.S., Lic.Theol.

The B.A., B.Sc., or B.Com. may be obtained by a 3 yrs.' undergraduate course. For the 1st yr. of the B.Sc. course equivalent study in another Univ., and for the 1st yr. of the B.Com. course 2 yrs.' attendance as an evening student, may be accepted. For the B.Mus. two public examns. must be passed.

For the M.B. and B.S. at least 1 of the 5 yrs. of Med. study must be spent in the Coll. at Newcastle. The B.Hy. is open to graduates in Med. who have spent 1 yr. in professional study at Newcastle. The B.D.S. course is one of 5 yrs.

The B.C.L. may be taken by examn. by a B.A. of 6 terms' standing. The LL.B. may be taken by a candidate of Intermediate grade in Arts or Science after a 3 yrs.' course.

The course for the Diploma in Teaching covers 3 terms after graduation.

The course for the Diploma in Arabic covers 3 terms.

The M.A. is open to a B.A. of 9 terms' standing who obtained rst or 2nd Class Honours in the Final B.A. examn. or, after passing this examn., has passed the Dipl. Theol., B.D., B.C.L., M.B. or B.Sc., degree examn., or who qualifies by passing a special examn. The M.Litt. can be obtained by graduates in Arts or Commerce of Durham after at least 2 years' research under the direction of a member of the University Staff. The M.Sc. can be obtained by a B.Sc. of 2 yrs.' standing by original work or examn. The M.D.S. can be obtained by a B.D.S. of 2 yrs.' standing by thesis and practical dental work of high skill. The M.Ed. can be obtained without further residence by graduates of

Durham or of an approved Univ. who hold the Dip. in the Theory and Practice of Teaching of Durham; by other graduates after a 2 yrs.' course of study under direction.

The D.Litt. or D.C.L. may be obtained by a B.A. (or B.Litt.) or B.C.L., respectively, of 10 yrs.' standing by a sufficient contribution to learning; the D.Sc. in the 7th year after admission to B.Sc.; the D.Mus. by a B.Mus of 14 terms' standing.

For the M.D. a candidate must have had 2 yrs. of practice in a hospl. or Mily, or Naval service after graduation as M.B.

For the D.Ch. a candidate must have devoted 3 yrs. (including one at least in the Univ. and 6 months at least abroad), subsequently to having obtained a registrable qualification, to the study of surgery and ancillary subjects.

For the D.Hy. 2 yrs.' experience of Pub. Health administration or research

after obtaining the B.Hy. are necessary.

M.D. Degree Examn. for Practitioners. A person who has been registered by the Gen. Med. Council of the U.K. and in the active practice of his profession for 15 yrs, as a qualified practitioner and is not less than 40 yrs, of age may obtain the M.D. degree without fulfilling any conditions as to residence on passing an examn. instituted for this purpose by this Univ. and held in June and Dec. Candidates who have not passed previously to their professional examn, an examn, in Arts are required to pass an examn, in Classics and Maths. Natives of India are admissible if they bring evidence of having passed within the preceding year an examn. in Latin. This examn. will not be held after June 1932.

Degrees, etc., in Theology. The B.D. examn. is open to candidates who are graduates in Arts of Durham. The Lic. in Theol. is open to members of the Church of England only. Nine terms must be kept at one of the Theol. Colls. in list C above. The Dipl. in Theol. is obtainable by graduates of a Univ. of the British Empire who keep 3 terms at Durham and pass the Dipl. examn. Residence for a year at an approved Australian Coll. may be accepted in lieu of keeping 3 terms at Durham. The D.D. is open to a B.D. of Durham who is a Master of Arts of 10 yrs.' standing on submission of a sufficient contribution to learning.

FEES. Matricn., £2. Examns. and degrees, £2 to £10 (Examns. for D.Ch., £20; D.Hy., £20; M.D. for practitioners, 50 gs.; Final for M.B., B.S., £15).

Publications. Univ. Calendar (Oct.), 2s. 6d.; Durh. Univ. Gazette, 4s., 4 times a year; Durh. Univ. Journal (oldest Univ. Mag. in England), once a term, is. 6d.

### THE YEAR 1930-31

NEW DEVELOPMENTS. Installation of new Chancellor. Postponement of Centenary celebrations (arranged for 1932) to 1934 on account of the economic depression. Certain senior members of the staff of Sunderland Tech. Coll. accorded the status of "Recognized Teachers in the University." Establishment of the Bishop Robertson Divinity Prize.

HONORARY DEGREES. D.D.—The Bishop of Gloucester, the Bishop of Hulme, the Ven. A. E. J. Rawlinson. D.C.L.—Lord Dawson of Penn, Mr. P. J. Heawood, Sir J. C. Irvine, Dr. R. Muir. D.Sc.—Sir A. S. Eddington. D.Litt.—Dr. F. C. Burkitt, Dr. E. J. Gwynn, Sir R. W. Livingstone, Miss Helen Waddell, Dr. G. B. Brown, Prof. W. Levison, Dr. L. C. Purser. M.A.-Mr. C. H. Leach, Mr. R. Angus.

STUDENTS READING FOR DEGREES AND DIPLOMAS OF THE UNIV. Fulltime, 1407. Part-time, 88.

Degrees. D.D., I; M.D., IO; D.Sc., 3; D.Mus., I; Ph.D., 5; M.A., 67; M.Sc., 9; M.Ed., 4; B.D., I; M.B. and B.S., 37; B.A., I23; B.Sc., IO5; B.Hy., 4; B.Mus., II; B.Com., 5; LL.B., 2; L.Th., 3I; Dip.Th., II; D.Th.P.T., I68; D.P.H., 4; L.D.S., 2; Diploma in Arabic, I.

Tutorial Classes (W.E.A.) and Extension Courses. The total no. of Advanced Classes was 1, of Tutorial Classes 47, of Extension Courses 21, of Preparatory Classes 5; districts served:—the counties of Durham, Northumberland, Cumberland and Westmorland.

# DURHAM DIVISION

President of Council—J. S. G. Pemberton, M.A., D.C.L. Secretary of the Council—J. L. Burchnall, M.C., M.A. Secretary of Examinations—J. H. How, M.A. Prælector—S. R. P. Moulsdale, M.A., B.D. Treasurer—F. W. Ritson, M.A. Librarian—E. V. Stocks, M.A. Sub-Librarian—D. Ramage, M.A. Edin.

PROFESSORS AND LECTURE	ERS
Archæological Research	Pace, Rev. E. G., M.A., D.D. (Div.)
Birley, E. B., B.A. Ox. Lectr.	Reader.
Botany	Hawthorn, J. C., M.A. Lectr.
Griffiths, B. M., D.Sc. Birm.,	Economics
F.L.S. Reader.	Helsby, L. N., B.A. Ox. Lectr.
Higgins, Edith M., B.Sc. Lond.,	Education and Psychology
Ph.D. Liv. Lectr.	Robinson, A., M.A., D.C.L. Prof.
Chemistry	Willatt, J. F., M.A. Camb.
Masson, J. I. Orme, D.Sc. Melb.,	Lectr. (Ed.).
F.I.Č. Prof.	English Lang. and Lit.
Christie, G. H., M.Sc., Ph.D. Sheff.	Ellershaw, Rev. Canon H., M.A.
Lectr.	Prof.
Gibby, C. W., M.Sc., Ph.D. Lond.	Colgrave, B., M.A. Camb. Reader.
Lectr.	Longland, J. L., B.A. Camb. Lectr.
Waters, W. A., M.A., Ph.D. Camb. Lectr.	French
Classics	Sells, A. L., M.A. Camb., D. ès L.
Richards, Rev. G. C., M.A., D.D.	Paris Prof.
Ox. (Greek and Class. Lit.)	Scott, Ethel M., M.A. Lond. Lectr.
Prof.	Dodds, Muriel, M.A. Camb., Doc.
How, Rev. J. H., M.A. Ox. (Latin)	de l'Univ. Paris Lectr.
Prof.	Meuret, P. L. Asst.
Boden, J. P., M.A. Lectr.	Manley, Audrey F., M.A., A.R.C.M.
Body, L. A., M.A. Camb. Lectr.	Asste.
Donaldson, Rachel E. D., M.A. Ox. and Durh. Lectr.	Domenge, J. Asste.
Norman, R. T., M.A. Lond., B.A.	Geography [Lectr.
Ox. Lectr.	Manley, G., M.A., B.Sc. Camb.
Whitaker, A. P., M.A. Ox.	Sylvester, Dorothy, M.A. Liv. Lectr.
•	Geology [Prof.
Divinity and Eccl. History Dawson-Walker, Rev. D., M.A.,	Holmes, A., D.Sc. Lond., F.G.S.
D.D. Ox. Prof.	Hopkins, W., M.Sc., Ph.D. Lectr.
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German Houston, Gertrude A. C., M.A. Belf., Lond., and Durh. Lectr. Hebrew and Oriental Langs. Thomas, David W., M.A. Ox. Prof. [Prof. Whiting, C. E., M.A., D.D., B.C.L. Lecturers: Hood, F. C., M.A. Edin. Douie, Decima L., B.A., Ph.D. Braley, Rev. E. F., M.A., LL.M. Camb. Methuen, Betty V. W., M.A. Liturgiology Moulsdale, Rev. S. R. P., M.A., B.D. Lectr. LogicWallis, Rev. C. S., M.A. Lectr. Mathematics [Prof. Heawood, P. J., M.A. Ox., D.C.L. Burchnall, J. L., M.C., M.A. Ox.

Military Science
Lynden-Bell, L. A., M.C. Lectr.
Music
Bairstow, E. C., D.Mus. Prof.

Baxter, E. F., M.A. Camb., M.Sc.

Lectr. (Applied M.).

Palæography

Falkner, J. M., M.A. Ox. and Durh. Hon. Reader.

Philosophy

Prof.

Physics

Wagstaff, J. E. P., M.A., D.Sc. Camb. Prof.

Chalmers, J. A., B.A. Camb., B.Sc. Lond. Lectr. Prowse, W. A., B.Sc. Lectr.

Psychology, v. Educn.

Theology, v. also Div.

Jarrow, Bishop of, D.D.

Hon. Reader and Lectr. in Pastor. Theol.

Coleman, Rev. N. D., M.A. Camb. Lectr. in T. and Hellenistic Greek.

#### University Extension

5 Tutors and Lecturers were employed, of whom 6 were members of the University Staff. Secy. to the Joint Committee: Rev. Dr. Pace. Organizing Secy. of N.E. District of W.E.A.: Alderman W. N. Smith.

### THE DURHAM COLLEGES

UNIVERSITY. Master—Rev. Canon H. Ellershaw, M.A. Censor—A. P. Whitaker, B.A. Bursar—A. A. Macfarlane-Grieve, M.A. Chaplain—Rev. N. D. Coleman, M.A.

Reader.

HATFIELD. Master—A. Robinson, M.A., D.C.L. Vice-Master and Chaplain—Rev. E. G. Pace, M.A., D.D. Tutor in English—B. Colgrave, M.A. Censor—B. Colgrave, M.A. Bursar—A. A. Macfarlane-Grieve, M.A.

St. Chad's. Principal and Chaplain—Rev. S. R. P. Moulsdale, M.A., B.D. Vice-Principal—Rev. C. E. Whiting, M.A., D.D., B.C.L. Classical Lectr.—L. A. Body, M.A. Fellow, Tutor, and Bursar—Rev. J. P. Boden, M.A. Junior Tutor—Rev. C. I. Pettitt, B.A.

St. John's. Principal—Rev. C. S. Wallis, M.A. Vice-Principal—J. C. Hawthorn, M.A. Chaplain—Rev. E. W. P. Ainsworth, M.A. Bursar—W. H. A. Learoyd, B.A. Classical Lectr.—O. W. Whaley, M.A. Lectr. in Hebrew—N. D. Coleman, M.A. Elocution Teacher—Rev. A. D. Culley, M.A., Mus.B.

St. Mary's (for women). Principal—Rachel E. D. Donaldson, M.A.; Senior Tutor and Censor—Betty V. W. Methuen, M.A. Junior Tutor and Secretary—Helen Dixon, B.A. Domestic Bursar—Amy D. Johns.

\*Bede (Training College for men). Principal—Rev. E. F. Braley, M.A., LL.M. Vice-Principal—R. R. Kimbell, M.A., Mus.Bac. Lectrs.—Rev. M. C. Petitpierre, M.A.; L. T. Crawhall, B.A., M.R.C.S.; C. R. Wheatley; C. S. Axon; D. E. Webster; W. J. Ingram; J. W. Roe, M.A.; Rev. J. T. Hughes, B.A.; H. Oldman, M.A.; J. Hutchinson, M.A.

\*St. Hild's (Training College for women). Principal—Eleanor C. Christopher, M.A. Lectrs.—Winifred Hindmarch, M.Litt.; Jean Templeton, M.A.; Barbara McRae, B.A.; Gladys Hinde, B.A.; Sylvia Blackham; Edith Maxwell, M.A.; Honor Brown; Emily Geere; C. Maude, F.R.C.O., A.R.C.M.

\*Neville's Cross (Training College for women). Principal—Zeta G. D. May, M.A. Lectrs.—Mary Benson, M.A., B.Sc.; Marjorie C. Haywood, M.A.; Winifred M. A. Lomas, B.Sc.; Netty M. Lunan, M.A.; Dorothy Price, M.A.; Agnes Bibby, L.R.A.M.; Agnes I. Champ; Ethel B. Row; C. Maude, F.R.C.O., A.R.C.M.

Non-Collegiate Students. Censor—Rev. N. D. Coleman, M.A. Home Students (Women). Censor—Gertrude A. C. Houston, M.A.

### GENERAL INFORMATION

For early history, see Yearbook for 1929.

LIBRARY, 41,000 vols., 157 incunabula; including rare theological and patristic books. Separate Science Library in the Department of Science. OBSERVATORY with almucantar, seismograph, etc.

MATRICULATION. See Appendix XX.

FEES. Including admission, tuition, examns., board and lodging, subscriptions and gratuities, at Univ. College, £115 p.a.; Hatfield, £106; St. Chad's, £116; St. John's, £100; St. Mary's, £106; St. Hild's, £50-£60; Neville's Cross, £45. Non-Coll. students pay £30 p.a. in Arts, £36 p.a. in Science, Univ. fees including club subscriptions; average cost of board and lodging per term £18 to £24.

Fellowships. 3 Research, £120, open only to candidates who have kept terms and taken B.A. in Durham Division. Pemberton Research Fellowship, £120, and Centenary Fellowship, £125, open only to candidates who have kept terms and taken B.Sc. in Durham Div.

THE YEAR 1930-31

Develorments. New buildings Hatfield College and new buildings Dept. of Sci. Hons. School of Geog. New Professorship of Hist. Two new Readerships. Lectr. in Rom. Brit. Archæol. New Lectureship in Econ. Additional Lectureship in Hist.

RESIGNATIONS. F. G. Simpson (Arch.), M. R. Dacombe (Hist.).

STUDENTS. Full-time, 480; part-time, 4.

DEGREES OBTAINED. D.D., I; D.Mus., I; Ph.D., 3; M.A., 40; B.A., 94; B.Sc., 18; B.Mus., II; L.Th., 3I; Dip.Th., 10; D.Th.P.T., 77; B.D., I; Dip.Arabic, I.

<sup>\*</sup> Colleges under the Board of Education licensed by the Council of Durham Colleges as places of residence for students reading for degrees in the Durham Division of the University.

# COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE

Chairman of the Court of Governors—R. G. E. Mortimer, O.B.E., J.P., M.A.

President of the College, Vice-Chairman of the Court of Governors and Chairman of Council—Sir Thomas Oliver, D.L., M.A., D.C.L., M.D., LL.D., D.Sc., F.R.C.P.

Vice-Chairman of Council and Registrar—Sir Robert Bolam, O.B.E., J.P., LL.D., M.D., F.R.C.P.

Treasurer-Sir Joseph Reed.

Dean of the College—Stuart McDonald, M.A., M.D., F.R.C.P.E., F.R.S.E.

Secretary of Examinations-D. Burns, M.A., D.Sc. Glas.

Curator of Museum-W. E. M. WARDILL, M.B., B.S., F.R.C.S.

### PROFESSORS, LECTURERS, ETC.

Anæsthetics
Tate, E., M.D., B.S. Lectr.
Tutors:
Armstrong, F. G., M.B., B.S.
Campbell, L. M. R., M.A., M.B.,
Ch.B. St. And.
Markham, H. H., M.B., B.S.
Osselton, E. W., M.B., B.S.
Phillips, W. J., B.Sc., M.B., B.S.
Seymour, W., M.B., B.S.

Anatomy
Green, R. B., M.A., M.B., B.S.
Lond., F.R.C.S.
Prof.
Whillis, J., M.D., M.S.
Lectr.
Rose, J. D., M.B., B.S., M.R.C.S.,
L.R.C.P.
Demr.

Lectrs. in Appl. A.: Lickley, J. D., M.D. Glas. Gilmour, J., M.B., B.S., F.R.C.S. Bacteriology, v. Path. Comp. Biology Harrison, J. W. H., D.Sc., F.R.S.E. (Botany) Prof.\* Meek, A., D.Sc., F.Z.S. (Zool.) Chemistry, Organic Clemo, G. R., Ph.D., D.Sc. Lond., D.Phil. Ox., F.I.C. Prof.\*

Chemistry, Inorganic

Briscoe, H. V. A., D.Sc. Lond., A.R.C.Sc., D.I.C. Prof.\*

Children, Diseases of

Ogden, O. W., M.D. Lectr.

Dentistry, v. infra

Dermatology, Clinical, and Veneral Diseases

Bolam, Sir Robert, O.B.E., LL.D., M.D., F.R.C.P. Lectr.

Thompson, S., M.D., B.S. Asst. Hygiene, v. Pub. Health

Laryngology, Otology, and Rhinology, Clinical

Wilson, W. F., M.B., B.S. Lectr. Whillis, R., M.A., M.B., B.Chir. Camb., F.R.C.S.E. Asst.

Materia Medica and Pharmacology

Hall, G., C.M.G., M.D., B.Sc., F.R.C.P. Lectr.

Prof.\*

<sup>\*</sup> Also in Armstrong Coll.

Electrotherapeutics Davidson, S. W., M.D., B.S. Lectr. Ramage, D., M.D., Ch.B. Manc., D.M.R.E. Liv. Asst.

Medical Jurisprudence Nattrass, F. J., B.S., M.D., M.R.C.P. Lectr.

Medicine, Principles andPractice

Beattie, T., M.D., F.R.C.P. Prof. Hume, W. E., C.M.G., M.A., M.D., B.C., F.R.C.P. (and Clin. M.). Lectr.

Medicine, Clinical

Lectrs.:

Hume, W. E. (v. Med. Princ. and Prac.).

Drummond, H., M.D., B.S. Parkin, A. (v. Therapeutics). Hall, G. (v. Mat. Med.).

Patterson, D. W., O.B.E., M.B., B.S., M.R.C.P.

Hunter, T. C., M.D., B.S. Nattrass, F. J. (v. Med. Juris.). Spence, J. C., M.D., F.R.C.P.

Tutors:

Armstrong, C. N., M.B., B.S., B.Hy., D.P.H., M.R.C.P. Ogilvie, A. G., M.B., B.S., M.R.C.P.

Blench, T. H., M.D., B.S., B.Hy., D.P.H.

Ungley, C. C., M.D., B.S., M.R.C.P.

Midwifery and Gynæcology Lyle, R. P. R., M.A., M.D. Dub. and Durh., B.Ch., B.A.O. Dub. Prof.

Murray, E. F., M.D. St. And., F.R.C.S.

Lectr. & Clin. Lectr.

Lectrs. in Clinical M.: Ruxton, W. L., M.B., C.M. Campbell, L. Mabel R., M.A., M.B., Ch.B.

Evers, H. Harvey, M.B., M.S., F.R.C.S.

Weeks, L. M., M.A., M.D., B.Ch.

Arkle, J. S., M.B., B.S. Ingram, H. V., M.B., B.S.,

Stephenson, G. E., M.C., B.Sc.,

Herbert, Freda K., M.A. Camb.,

Spence, J. C. (v. Med., Clin.) (Medi-

Wardill, W. E. M., M.B., B.S.,

Hutchens, H. J., D.S.O., D.P.H. Heath Prof. Iredale, J. L. G., M.B., Ch.B.,

Physiology [Prof. Burns, David, M.A., D.Sc. Glas. M.Sc., L.R.C.P., Secker, J.,

Saunders, J. A., M.Sc. Demr. Henderson, Nellie, B.Sc. Lond. ,, Ogilvie, A. G., M.B., B.S., M.R.C.P. Demr.

Psychological Medicine

MacPhail, H. D., O.B.E., M.A., M.D. Lectr.

Public Health

Kerr, H., O.B.E., M.A., M.D., Ch.B. Edin., D.P.H. Prof.

Surgery

Turner, G. G., M.B., M.S., F.R.C.S., F.A.C.S. (and in Clin. S.) Prof. Clay, J., C.B.E., M.B., B.S., F.R.C.S. Lectr.

Clinical Lectrs.:

Willan, R. J., M.V.O., K.H.S., M.B., M.S., F.R.C.S.

Pybus, F. C., M.B., M.S., F.R.C.S. Johnston, H. M., B.A., M.B. Belf., F.R.C.S.

Barclay, J. H., M.D., M.S., F.R.C.S. Hodgson, N., M.B., M.S., F.R.C.S. Hindmarsh, T. A., M.B., M.S.,

F.R.C.S.
Gilmour, J., M.B., M.S., F.R.C.S.
Whyte, A. H., M.B., M.S., F.R.C.S.
Hewitson, W. A., M.B., B.S. Lond.,

M.B., M.S., F.R.C.S. Wardill, W. E. M., M.B., B.S., F.R.C.S.

Brumwell, J., M.B., B.S., F.R.C.S. Surgical Registrars:

Mason, G. A., M.B., B.S., F.R.C.S. Watts, W. P. T., M.B., M.S., F.R.C.S.E.

Saint, J. H., M.D., B.S., M.S. Minn., F.R.C.S. Daniels, K., M.B., B.S.

Feggetter, G. Y., M.B., B.S.

Kaufmann, Phyllis I., M.B., Ch.B.
Manc.

Sanderson, R. H., M.B., Ch.B.Edin. Stanger, J. K., M.B., B.S., L.R.C.P., M.R.C.S.

Ungley, H. G., M.D., B.S., L.R.C.P., M.R.C.S.

Therapeutics

Parkin, A., M.D., M.R.C.P., F.R.C.S.

Zoology, v. Biol.

### Dentistry

Lectrs.:

Laing, A. M., L.D.S. (D Anat. and Physiol.).

..... (D. Mechanics).

Smythe, J. A., D.Sc., Ph.D. Gott. (D. Metallurgy).

Coltman, J., L.D.S. (D. Surg. and Path.).

Hutson, W., L.D.S. (Op. D. Surg.). Cooper, E. R., L.D.S. Edin. (Orthodontics).

Seymour, W., M.B., B.S. (D. Anæsthetics).

Davis, H., L.D.S. (D. Mat. Med. and Therap.).

Secker, J., M.Sc., L.R.C.P., M.R.C.S. (D. Histology).

7 Hon. D. Surgeons, 19 Hon. Asst. D. Surgeons, 1 Anæsthetist, 1 Hon. Radiographer. Mallett, R. H., L.D.S.

Tutorial D. Surgeon.

### GENERAL INFORMATION

Instruction in Clinical Medicine and Surgery is given in the Royal Victoria Infirmary (560 beds) and other hospitals; in Practical Midwifery and Clinical Gynæcology at the Princess Mary Maternity Hospital. The Pathological Museum provides an exceptional collection of specimens prepared by modern methods. Post-graduate teaching is supervised by a committee representing the College and the hospitals. Research facilities are available in the various departments.

LIBRARIES. An annual contribution is made to the Library at Armstrong College. In the Medical Section of the Armstrong College Library available

for students of the College of Medicine there are over 15,000 volumes. Departmental libraries, 749 volumes.

Museums. Anat., Hygiene, Mat. Med., Path.

MATRICULATION. See Appendix XX.

Scholarships open to undergraduate students of the College vary from £20 to £60 p.a.; open to graduates, £200 every second year and £180 every third year, and grants for surgical research.

FEES. For tuition: M.B., B.S. (5 years' course), £235:12:6; L.D.S. (4 years' course), £263:17s.; B.D.S. (5 years' course), £290:2s. (in each case including all hospital fees and subscriptions to Students' Union). For examinations: Pre-Registration, £3:3s.; M.B., B.S., £30; M.D., £5; M.S., £5; D.Ch., £20; B.Hy., £10:10s.; D.P.H., £10:10s.; D.Hy., £20; D.Psy., £10:10s.; M.D. (for practitioners), £52:10s., including fee for degree; L.D.S., £15:10s.; B.D.S., £23; M.D.S., £5. For degrees: M.B., £6:6s.\*; B.S., £6:6s.; M.D., £10; M.S., £6:6s.; D.Ch., £10; B.Hy., £6:6s.\*; D.P.H., £3; D.Hy., £10; D.Psy., £3; L.D.S., £3; B.D.S., £6:6s.\*; M.D.S., £6:6s.; Ph.D., £5\*. (When a degree marked \* is an initial degree at the University the sum of 10s. is added.)

### THE YEAR 1930-31

BENEFACTIONS. From Sir Arthur Munro Sutherland, Bart., K.B.E., £12,200 towards the building and equipment of a new dental hospital and school. The Dental Board of the U.K. has made grants of £2500 towards the building and £1000 towards the equipment of this school. A further £3000 from a fund of the Newcastle-upon-Tyne Dental Hospital will bring up the total to £18,700. From the friends, professional and private, of the late Hamilton Drummond, M.B., B.S., F.R.C.S.E., an Hon. Surgeon at the Royal Victoria Infirmary and Demr. of Surg. Pathol. in the Coll., £1201 for a medallion in the Royal Victoria Infirmary and a "Hamilton Drummond Memorial Scholarship." The scholarship £50 for 1 yr.) is in aid of research in clin. surgery.

New Buildings. A new Dental Hospital and School in the grounds of the Royal Victoria Infirmary. The Hospital was ready at the beginning of the academic year 1931–32, and the School buildings are expected to be ready by Jan. 1932. The Dental School is an integral part of the Coll. of Medicine; the Dental Board of the U.K. has approved the Dept. for grants of bursaries to approved students.

Changes in Regulations. The Senate decided on Feb. 4, 1930, that the examination for M.D. for medical practitioners of 15 yrs.' standing, without residence, shall not be held after June 1932.

RETIREMENTS. Mr. S. S. Whillis, M.D., B.S. (Diseases of the Throat, Nose, and Ear).

NEW Post. One whole-time demonstrator of Pathol. Chemistry.

VISITS OF TEACHERS. Dr. W. E. Hume delivered the Bradshaw Lecture on "Paroxysmal Tachycardia" in November 1930. Prof. G. Grey Turner delivered two lectures on "Resection of the Rectum" at St. Thomas' Hosp. for the Univ. of London in May 1931. In June 1931, by invitation of the Boston Surgical Society, Prof. Turner gave an address on "The Surgery of the Esophagus," and was awarded the H. J. Bigelois Medal.

STUDENTS. Full-time: 305, including 8 graduates. Part-time: 75, including 71 graduates.

DEGREES AND DIPLOMAS: M.D., 10; B.Hy., 4; M.B., B.S., 37; D.P.H., 4; L.D.S., 2.

## ARMSTRONG COLLEGE, NEWCASTLE-UPON-TYNE

President of the College—Rt. Hon. VISCOUNT GREY OF FALLODON, K.G., P.C., D.C.L.

Chairman of Council—CECIL A. COCHRANE, M.A., D.C.L., J.P.

Vice-Chairman of Council-WILFRED HALL, M.A., D.Sc.

Principal—Sir William S. Marris, K.C.S.I., K.C.I.E., B.A. New Zeal., D.Litt.

Registrar and Secy. of Examinations—W. S. Angus, M.A. Ox., LL.B. Liv. Bursar—R. N. Wilkinson.

Librarian—F. Bradshaw, M.A. Ox. and Durh., D.Sc. Lond.

### PROFESSORS, LECTURERS, ETC.

Accounting
Bell, Albert, F.C.A. Lectr.
Allan, T. K., A.C.A. Asst. Lectr.

Agriculture and Rural Economy,
v. also Forestry, Vet. Sc.,
Dairy Bact.

Hanley, J. A., A.R.C.S. Lond., Ph.D. Munich Prof. Wheldon. R. W., D.Sc. Lectr. Pawson, H. C. Lectr.

Adam, D. T., B.Sc. Aberd. (Land Surv., etc.) Lectr.

Westwater, C. H., M.A., B.Sc. Glas. Lectr.

Agricultural Botany Harrison, Miss H. H., M.Sc. Lectr.

Agricultural Chemistry
Thomas, B., M.Sc. Adviser.
Hall, A. A., M.Sc. Liv. and Manc.
and Durh., Ph.D. Jena, F.I.C.

Agricultural Economics
Dinsdale, D. H., M.A. Adviser.
Harris, A. E.

Tech. Asst. to Adviser. Glaister, W. W., B.Sc.

Student Asst. to Adviser.

Agricultural Mycology [Adviser.
Bennett, F. T., B.Sc., Ph.D. Lond.

Agricultural Zoology
Gray, R. A. H., M.A., B.Sc. Aberd.,
M.Sc. Adviser.

Archæology
Birley, E. B., B.A. Ox. Lectr.

Art (School of Fine Arts)

Mainds, A. D., A.R.S.A.

Prof. and Dir. of School.
Bullock, R., M.A.

Master of Painting and Asst. Dir.

Bertram, R. J. S., M.A. (Design). Maryon, H. J., Assoc. Univ. Read. (Sculpture).

Cordingley, R. A., M.A. Manc., F.R.I.B.A. (Archit.).

Heslop, A., M.A. (Engraving). Lall, Mrs. D. M., B.A. Birm. (Art

Teaching).
Willis, Miss R., A.R.C.A. (Crafts).
Cahill, T. J., B.A. Manc. (Archit.)

Lectr. Thomson, Miss M. (Pottery). 7 Assts.

Botany, v. also Agric. Harrison, J. W. H., D.Sc., F.R.S. Prof. and Reader in Genetics. Lectr.

Blackburn, Miss K. B., D.Sc.

Bartlett, A. W., M.A. Camb., B.Sc.

Lond., F.L.S.

Lectr.

Lectr.

Brown, V., O.B.E., T.D., M.Sc.

Bailes, Stella, B.Sc.

Jeffreys, M. V. C., M.A. Ox. Lectr. Lond., M.Sc., F.L.S. Lectr. Hawthorn, Miss C. M., M.A., B.Sc. Thomas, Meirion, M.A. Camb. Lectr. Warden of Women's Hostel. Chemistry, v. also Agr. Leitch, Miss G. C., M.A., B.Sc., Briscoe, H. V. A., D.Sc. Lond., Ph.D. St. And. M.Sc., A.R.C.S., D.I.C., F.I.C. Asst. Warden of Women's Prof. (Inorg. and Physi-Hostel. cal C.) and Dir. of Dept. Engin., Mechanical, Marine and Clemo, G. R., Ph.D., D.Sc. Lond., Civil, v. also Nav. Arch. D.Phil.Ox. Prof. (Organic C.). Hawkes, C. J., M.Sc., M.I.N.A., Madgin, W. M., M.Sc. Lectr. M.I.Mech.E. Prof. Robinson, P. L., D.Sc., F.I.C. Morrow, J., T.D., M.Sc. Manc. and Lectr. Durh., D.Eng. Liv. Mallen, Miss C. E., M.A. Camb. Hardy, G. F., M.Sc. Lectr. Lectr. Lectr. Hall, J., M.Sc. Leitch, Miss G. C., M.A., B.Sc., Dixon, J. T. H., M.Sc. Lectr. Ph.D. St. And. Lectr. Martin, H. E. L., B.Sc. Bris. and Haworth, R. D., M.Sc., Ph.D. Lectr. Lond. D.Sc. Manc., F.I.C. Lectr. Talbott, A. C., M.Sc. Birm. Lectr. Sayce, L. A., M.Sc., Ph.D. Lectr. Boulton, N. S., M.Sc. Birm. Lectr. Raper, R., M.A., Ph.D. Camb. " O'Grady, S. C., B.A. Dubl. Lectr. Classics and Ancient History Engineering, Electrical Duff, J. Wight, M.A. Aberd. and Thornton, W. M., O.B.E., D.Sc. Ox., D.Litt. Ox. and Durh., Manc., Liv., and Durh., LL.D. Aberd. Prof. D.Eng. Liv. Shipley, Miss C. M., M.A. Lectr. Dickinson, J., M.A. Ox., M.Eng. Whittick, G. C., M.A. Ox. Lectr. Sheff. Lectr. Edwards, A. C., B.A. Birm. Lectr. Wilcken, J. A., B.Sc. Copenhagen Crystallography and Mineralogy and Lond., Ph.D. La Plata Fletcher, Rev. M., M.A. Camb. and Lectr. Durh., M.Sc., F.G.S. Lectr. English Renwick, W. L., M.A., D.Litt. Dairy Bacteriology Glas., B.Litt. Ox. Adviser. . . . . . . J. Cowen Prof. Economics, v. also Accounting, Wragge, Sybil, M.A. Lectr. Elmes, R. S., M.A. Camb. Lectr. Hallsworth, H. M., C.B.E., M.A. Orton, H., M.A., B.Litt. Ox. Manc., M.Com. D. Dale Prof. Lectr. McCallum, E. D., M.A. Glas. Lectr. French, v. Modern Langs. Highton, H. E. R., M.A. Glas., Geography Lectr. Allen, E., M.A. Sheff. Daysh, G. H. J., B.Litt. Ox. Lectr. Tyrrell, Miss M., B.Sc. Glas. Lectr. Education Geology, v. also Cryst. Smith, Frank, M.A. Camb., B.Sc. Hickling, H. G. A., D.Sc. Manc., Manc., Ph.D. Wales Prof. Melville, Ellen L., M.A. Leeds M.Sc. J. B. Simpson Prof. Lectr. Mockler, G. S., B.Sc. Manc. Lectr. and Durh. G

Raistrick, A., M.Sc., Ph.D. Leeds Lectr.	Modern Languages Girdlestone, C. M., M.A. Camb.,
Tomkeieff, Serge Lectr.	L. ès L. Paris
History, Modern [Prof.	Prof. of French and
Morison, J. L., M.A., D.Litt. Glas.	Director of Dept.
Bradshaw, F., M.A. Ox. and Durh.,	Lectrs.: Macgregor, Lilias, M.A. Edin. and
D.Sc. Lond. Lectr. Tomkeieff, Mrs. O. G., M.A., LL.B.	Durh., D. de l'U. Gren. (Fr.).
Camb. Lectr.	Vallette, Jean, L. ès L. Paris (Fr.).
Cobban, A. B. C., M.A., Ph.D.	Tomlinson, Mme., (Fr.).
Camb. Lectr.	Atkinson, W., M.A. Belf. (Spanish).
History, Ancient, v. Classics	Cunningham, Kathleen, M.A.
Law	N.U.I., Ph.D. Bonn (German).
Johnston, T. K., M.A., LL.M. Camb. Lectr.	Music
Charlesworth, J., LL.D. Lond.	Newman, S. T. M., B.A. Ox.
Asst. Lectr.	F.R.C.O. Lectr.
Muir, C. W., M.A., LL.B.	Naval Architecture Abell, Sir Westcott S., K.B.E.,
Lectr. (Company Law).	R.C.N.C. (retd.), M.Eng. Prof
Mathematics Havelock, T. H., M.A. Camb.,	Scott, J. L. Lectr.
D.Sc., F.R.S.	Philosophy, Mental and Moral
Prof. and Director of	Harvey, J. W., M.A. Ox. Prof. Kneale, W. C., M.A. Ox. Lectr.
Dept.	Physics
Goldsbrough, G. R., D.Sc., F.R.S. Prof. and Reader (Dyn-	Curtis, W. E., A.R.C.Sc., D.Sc.
amical Astron.).	Lond.
Caunt, G. W., M.A. Camb. and	Prof. and Director of
Durh., M.Sc. Reader. Colborne, D. C., M.A. Camb. Lectr.	Dept. Todd, G. W., M.A. Camb., D.Sc.
Miles, W. H., B.A. Ox. Lectr.	Birm., M.Sc. Prof. (Expl. P.).
Mulholland, H. P., M.A., Ph.D.,	Bullerwell, J. W., M.Sc. Lectr.
Camb. Lectr.	Richardson, E. G., B.A., Ph.D., D.Sc. Lond. Lectr.
Metallurgy	Wood, J. F., M.Sc. Lectr.
Smythe, J. A., D.Sc. Durh., Ph.D. Gött. Wm. Cochrane Lectr.	Darbyshire, O., M.Sc. Manc. ,,
Pearson, C. E., M.Met. Sheff. ,,	Religious Knowledge
Military Science	Fletcher, Rev. M., M.A. Camb. and
Bell, Capt. L. A. Lynden, M.C.,	Durh., M.Sc. Lectr.  Secretarial Practice
M.A. Lectr.	Arkless, J. C., A.C.I.S. Lectr.
Mining [Milburn Prof.	Veterinary Science
Poole, Granville, B.Sc. Birm.	Stewart, W. L., M.R.C.V.S.
Whetton, J. T., M.C., M.Sc. Leeds	Adviser.
Wedgwood, A., M.Sc. Lectr.	Zoology, v. also Agric. [Prof. Meek, A., B.Sc. St. And., D.Sc.
Mason, G. A., M.B., B.S.	Bartlett, Mrs. Olga M., M.Sc.
Lectr. in First Aid.	Lectr.

Cooper, J. Omer, M.A. Camb.

Steel, A., M.Sc. Wales Lectr. Storrow, B., M.Sc.

Naturalist at Marine Lab. Bull, H. O., B.Sc., Ph.D. Lond. Biologist at Marine Lab.

Cowan, Mrs. D.

Librarian at Marine Lab.

University Extension

Extra-Mural Organiser and Jt. Sec., Board of Extra-Mural Studies: H. E. R. Highton, M.A. Glas.

English

Lochhead, J., M A. Glas.

[Tutor-Organiser for Cumber-land and Westmorland.

### GENERAL INFORMATION

LIBRARY, 96,704 vols. (including the Medical libraries). Access to Lit. and Philos. Society's 100,000 vols., and to library of N. of England Inst. M.M.E. Scientific periodicals subscribed for in co-operation with City Public Library. Special libraries: English Bibles from 1535; Heslop, English dictionaries (277 vols.); Kepier, fifteenth to eighteenth-century printed books, mostly classics (600 vols.); Merz, philosophical and mathematical (2804 vols.); Spence Watson, early English texts (527 vols.); Oriental, with special reference to India (1953 vols.); Gilchrist Agricultural (700 vols.); Gertrude Bell, Oriental (1934 vols.). Laboratorries with special facilities for research in Engin. and Hydr.; special branches of Chem., Physics, and Agric.; Marine Biol. (Dove Marine Lab., Cullercoats. See App. XXIV. A. III.).

The Agric. Dept. controls and uses for teaching and research in Agric., Dairying, and Forestry several County and Crown estates, including Cockle Park (Northumberland) Agric. Exptl. Station.

ADMISSION. See Appendices XX. and XXI. For admission to study for the College Diploma (i.) in Agric., Mining, or Commerce, or for the Certificate in Fine Art, no regular entrance examn. is required; (ii.) in Engineering or Naval Architecture an entrance examn. must be passed unless the student has passed some equivalent examn. (School Certificate standard in Extra Maths., Mechanics, Physics, and Chemistry); (iii.) in Fine Art an entrance examn. in English, and either French, or German, or Spanish is prescribed.

Complete Courses for the Arts, Science, Law, and Commerce degrees and the Educn. Diploma of the Univ. The Applied Science courses are in Agriculture, Engineering (Mechanical, Marine, Civil, or Electrical), Naval Architecture, Mining, and Metallurgy. The Teachers' Training Dept. trains for both Elementary and Secondary School Work.

College Diplomas in Architecture (5 yrs.), Engineering (3 yrs.), Naval Architecture (3 yrs.), Mining (2 yrs.), Agric. (3 yrs. of 2 terms each), Fine Art (4 yrs.), Commerce (2 yrs.). College Certificate in Fine Art (4 yrs.). College Certificate in Agriculture (2 tms.). Short courses are provided in Agric. (6 weeks and 6 months).

A *Tutorial System* is established in all Faculties. Each student is assigned on entry to a tutor, who is responsible for advising him on his course and generally looking after his interests.

Fellowships, etc. £300 for one year, open to a graduate in Science or Commerce; £150 for two years, open to a graduate of any Faculty; £150 for one year, open to a graduate in Science; £150 for one year, open to a graduate in Arts; £75 (two) studentships for one year, open to graduates of any Faculty. The total amount available for post-graduate fellowships, etc., is about £2025 p.a., including a Senior Research Fellowship established under the Research Fund (see next paragraph) of £300 p.a. available for one year.

RESEARCH FUND established in 1923 with endowment of £12,000. Administered by a Standing Committee, which allocates the interest of the fund as grants in aid of specific investigations by trained workers rather than for training persons in research.

Annual Tuition fee in courses for degree of B.A. or B.Com., £30; B.Sc., £35 (in Engin., etc., £40); and for Diploma in Agric., £22: ros.; Cert. in Agric., £18; Diploma in Teaching, £35; in Engin., etc., £40; in Fine Arts, £16; in Commerce, £5: ros. per subject (in evening classes, £3 a subject). Examns. for B.A. or B.Sc., £7; Students' Societies (men and women), £2: 2s. Registration Annual (Degree students and some others), £2.

UNIVERSITY EXTENSION. Public lectures in the College include the annual Earl Grey Memorial and W. H. Charlton lectures, occasional lectures and short courses (winter programme issued in Oct.), lectures in French (Alliance Française), and popular evening lectures. Short courses in various centres in Agriculture and Forestry. Tutorial classes in various centres (most of the tutors are regular members of college staff).

Publications. Calendar (Sept.), 2s. 6d.; Principal's Annual Report (Oct.); The Northerner (Students'), 5 issues annually.

### THE YEAR 1930-31

BENEFACTIONS. Messrs. A. Reyrolle & Co., Ltd., £250, for Elect. Engin. Equipment; Legacies of £3000 each under the wills of the late Sir Charles Parsons and the late Prof. D. A. Gilchrist, the latter for the Douglas Alston Gilchrist and the Alan Gilchrist Memorial Scholarships; Emer.-Prof. Henry Stroud, £1000  $2\frac{1}{2}$  per cent Consols, to found the Eva Mary Antoinette Stroud Prize in Physics.

DEATH AND RESIGNATIONS. R. G. Lunnon (Physics), deceased; E. M. O'R. Dickey (Fine Art), on appointment as Staff Inspector under the Board of Education; J. Y. T. Greig (Registrar and Sec. of Examns.), on appointment as Prof. of Engl. at the Univ. of the Witwatersrand; Mrs. J. E. Alderson (Philos.); F. G. Simpson (Archæol.); L. Morrison (Agric. Zool.), on appointment at Canterbury Coll., N.Z.; D. W. W. Henderson (Dairy Bact.), on award of a Carnegie Research Fellowship; R. Bradbury (Archit.), on award of a Commonwealth Fund Fellowship.

EXTENSION WORK. Public lectures in the College included: two French lectures under the auspices of the Alliance Française; the Earl Grey Memorial Lecture on "War-Thoughts in Peace-Time," by C. D. Broad, M.A., Litt.D., F.B.A.; the W. H. Charlton Lecture on "Delacroix and the Centenary of the Romantic Movement," by H. L. Wellington, Hon. A.R.C.A.; and a series of Popular Evening Lectures throughout the winter by various members of the Staff. Extra-mural Classes: Tutorial Classes 23, students 386; Extension Courses 20, students 320; total: classes 43, students 706.

NEW BUILDINGS. A hall of residence for men, to accommodate some 80 students is being built. It is expected to be ready in 1932.

STUDENTS. Full-time, 753, including 108 graduates. Part-time, 590, including 16 graduates.

Degrees obtained. M.A., 19; B.A., 59; D.Sc., 4; Ph.D., 6; M.Sc. (Pure Sci.), 6; B.Sc. (Pure Sci.), 65; M.Sc. (Appld. Sci.), 3; B.Sc. (Appld. Sci.), 22; B.Com., 5; M.Ed., 4; LL.B., 2.

### UNIVERSITY OF LEEDS

VISITOR--H.M. THE KING.

CHANCELLOR-His Grace the Duke of Devonshire, K.G., G.C.M.G., G.C.V.O., LL.D.

Pro-Chancellor-Col. C. H. Tetley, D.S.O., M.A.

VICE-CHANCELLOR-Sir JAMES B. BAILLIE, O.B.E., M.A. Camb., D.Phil. Edin., LL.D., J.P.

Pro-Vice-Chancellor-Prof. John Strong, C.B.E., M.A., LL.D.

TREASURER-Hon. R. E. BECKETT.

DEANS OF FACULTIES. See under "General Information"-Faculties. REGISTRAR-A. E. WHEELER, M.A.

ACCOUNTANT-E. J. Brown, B.Com.

CLERK TO THE SENATE-F. T. BAINES, B.A.

TUTOR OF WOMEN STUDENTS-Miss DORA M. HIBGAME, M.A. Ox.

LIBRARIAN-R. OFFOR, Ph.D. Lond.

#### PROFESSORS, LECTURERS, ETC.

Agriculture v. infra

Anatomy [Prof. Jamieson, J. Kay, M.B., C.M. Edin. (Dean of Med. Fac.)

Cave, A. J. E., M.B., Ch.B. Manc. Demr.

Scholefield, J., M.B., Ch.B. Demr. Morton, W. C., C.B.E., M.A., M.D. Edin. Hon. Demr.

Tasker, R. B., M.C., L.D.S., Hon. Demr. in A. for Dental Students.

Bio-Chemistry, v. Physiol.

Botany

Priestley, J. H., D.S.O., B.Sc. Lond., F.L.S. Prof.

Pearsall, W. H., D.Sc. Manc.

Reader. Walker, N. (Morphol.) Lectr. Scott, Lorna I., B.Sc. Lond. Lectr.

Asst. Lectrs. :

Steward, F. C., Ph.D.

Sledge, W. A., Ph.D.

#### Demrs.:

Grist, Mrs., B.Sc. Lond. Hon. Malins, Marjorie E., B.Sc. (R.).

Pilling, Mahetabel, B.Sc. Demr. & R. (pt.).

Chemistry, v. also Technology-Colour Chemistry.

Whytlaw-Gray, R. W., O.B.E., Ph.D. Lond., F.R.S.

Usher, F. L., D.Sc. Lond. Reader (Colloid Chem.).

Lowson, W., B.Sc. Lond. and Leeds, F.I.C. (Analyt. C.) Lectr.

Gregory, J. C., B.Sc., F.I.C.

Hume, J., B.Sc., A.I.C. Asst. Lectrs. and Demrs.:

Clark, C. H. D., M.Sc. Lond.

Garrick, F. J., B.A. Ox.

Colvin, J., B.Sc., Ph.D. Liv. Demr. Bradley, R. S., B.A. Camb. Demr. Wbitaker, H., M.Sc.

Chemistry, Organic

Challenger, F., D.Sc. Birm., B.Sc. Lond., Ph.D. Göttingen Prof.

(R.) = Research Asst.

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Baker, J. W., D.Sc. Lond. Lectr. Burton, H., Ph.D., D.Sc. Lond., M.Sc. Sheff. Lectr. Wightman, W. A., M.A. Ox. Asst. Lectr. & Demr.	Reedman, J. N., M.Com. Ph.D. Sheff. Asst. Lectr. (temp.). Wilson, Gwendolen (Soc. Work) Tutor. Emmerson, Nancy, B.Com. (R.).
Goss, F. R., Ph.D. Lond. ,, Shoppee, C. W., Ph.D., D.Sc. Lond. Demr.	Education Strong, J., C.B.E., M.A. Lond., LL.D. St. And. Prof.
Rothstein, E., Ph.D. Lond. (R.).	Welpton, W. P., B.Sc. Lond.
Chemistry, Physical Dawson, H. M., B.Sc. Lond., Ph.D. Gies., D.Sc. Prof. Smith, G. F., Ph.D. Wales	Monahan, A. J., M.A. Lectr. Wynn-Jones, Ll., Ph.D. Leip. (Expl. E.) Lectr.
Asst. Lectr.	Curtis, S. J., M.A. Lond. Asst. M. of Method.
Belton, J. W., Ph.D. Liv. Demr. Millet, H., Ph.D. Liv. (R.).	Blackburn, Eliz. M., M.A.
Chemistry Research Cooper, K. E., Ph.D. Asst. Ashley, J. N., B.Sc. Birm., Ph.D. Manc., A.I.C. Asst.	Lectr. and M. of Method. Robson, Winifred F., M.A. Liv. Asst. M. of Method. Holgate, Jane, B.A. Asst. Lectr.
Classics Edwards, W. M., M.C., M.A. Ox. Prof. (Greek).	Asst. Lectrs.: Newcomb, Edith, M.A. Columbia. Smith, C. A., B.A. Lond.
Noble, P. S., M.A. Camb. and Aberd. Prof. (Latin). Bibby, E. E., M.A., Camb. (Lat.) Lectr.	Engineering, Civil and Mech. David, W. T., M.A., Sc.D. Camb., D.Sc. Wales, M.I.C.E., M.I.Mech.E. Prof. Gilchrist, J., B.Sc. Edin. Lectr.
Asst. Lectrs.: Binyon, D. E. F., B.A. Ox. (Lat.). Langton, M. C., B.A., Camb. (Gk.). Symonds, Rev. H. E., M.A. Ox. (Lat.) Pttime Lectr.	Asst. Lectrs.: Davies, W., B.Sc. Wales. Richardson, S. G., M.Sc. Evans, R. H., M.Sc. Manc.
Commerce, v. Economics	Brown, J. R.
Dentistry, v. infra	Caton, E. E. Demr. Jordan, J., B.Sc. Manc. Demr.
Economics	Engineering, Elec. [Prof.
Jones, J. Harry, M.A. Wales Prof. Richardson, J. H., M.A. Camb., Ph.D. Lond. Montague Burton Prof.	Wheatcroft, E. L. E., M.A. Camb. French, W. E. Lectr. Stuart, W. S., M.Eng. Liv. Asst. Lectr. and Demr.
(Indust. Relations). Shimmin, A. N., M.A. Manc. Lectr. Dower, R. S., M.A. Camb. (Social Organization) Lectr.	English Lang. and Lit. Wilson, F. P., D.Litt. B'ham., M.A. Ox. (Lit.) Prof.
Dickinson, H. D., M.A. Camb. (Ec. Hist.)  McCarmick, A. (Acctcy.)  Lectr.	Dickins, B., M.A. Camb. (Lang.) Prof. Childe, W. R., M.A. Ox. Lectr.
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LEEDS

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Asst. Lectrs.: Ross, A. S. C., B.A. Ox. Stewart, J. I. M., B.A. Ox. Wilson, R. M., M.A.

French (and Romance Philol.)
Barbier, P., M.A. Lond. Prof.
Gunnell, Doris, M.A., D. de l'U.
Paris Lectr.
Murray, Jessie, M.A. St. And.,
D. de l'U. Paris Lectr.
Inebnit, J. P. Asst. Lectr.
Benn, T. V., Ph.D. Asst. Lectr.
Hainsworth, G., M.A. ,, ,,

Geography

Williamson, A. V., M.A. Liv. Lectr.

Asst. Lectrs.: Griffiths, F. W. G., B.A. Camb. Clark, K. G. T., B.A.

Geology

Gilligan, A., D.Sc., F.G.S., M.I.M.E. (Dean of Sci. Fac.)

Versey, H. C., D.Sc. Lectr. Hudson, R. G. S., D.Sc. Lond., F.G.S. Lectr.

Alexander, G. B., B.A. Camb.

Demr. and (R.).

German Lang. and Lit.
Gough, C. E., Ph.D. Basle Prof.
Asst. Lectrs.:

Caldwell, M. Constance, B.A. Scott, Alice A., M.A. Lond. Peacock, R., M.A. (Temp.).

Hebrew

Allan, Rev. J. B., Ph.D. Edin., M.A., B.D. St. And. Lectr.

Histology, v. Physiology

History

Thompson, A. Hamilton, M.A. Camb., D.Litt. Durh., F.B.A., F.S.A., Hon, A.R.I.B.A.

Prof. Turberville, A. S., M.C., M.A., B.Litt. Ox. Prof. (Mod.). Dainton, A. H., M.A. Ox. Lectr. Richardson, G. W., M.A. Lond. Lectr.

Curtis, Muriel E., B.A. Lond. Asst. Lectr.

History, Eccles.

Underwood, Rev. A. C., M.A., B.Litt., D.D. Lond. Lectr.

Law

Hughes, J. D. I., M.A., B.C.L. Ox. (Dean of Arts Fac.) Prof. Lectrs.:

Haggen, G. L., M.A., B.C.L. Ox. Burrill, H. R., LL.B.

Hargreaves, A. D., M.A., LL.B. Camb.

Mathematics

Milne, W. P., M.A. Camb., M.A., D.Sc. Aberd. Prof. Brodetsky, S., M.A. Camb., Ph.D. Leip. Prof. (Appd. Maths.).

Gabriel, R. M., M.A., Camb. Reader (Math. Analysis).

Lectrs.:

Gilham, C. W., M.A. Camb., B.Sc. Lond.

Smeal, G., M.Sc. Melb. (Statis. Meth.)

Stoneley, R., M.A. Camb. (Appl. M.).

McVittie, G. C., Ph.D. Camb.
Asst. Lectr.

Metallurgy, v. Tech.

Medicine and Surgery, v. infra

Mining

Ritson, J. A. S., D.S.O., B.Sc. Durh. Prof.

Lectrs.:

Brown, T., M.Sc. (Mine Surveying). Williamson, J. N., Ph.D., B.Sc. Edin. (Mining and Ore Dressing).

Music

Allam, E. W., B.A. Camb., B.Mus. Lond., A.R.C.M.

(R.) = Research Asst.

Penzol, P.

de Irizar, Augustin

Prof.

Lectr.

Spanish Lang. and Lit.

Prof.

Lectr

Asst. Lectr.

Physics

Philosophy
Gillespie, C. M., M.A. Ox.

Rainer, A. C. A., M.A. Edin.

Physics	Technology, v. infra
Whiddington, R., M.A., D.Sc.	***
Camb., F.R.S. Cavendish Prof.	Zoology, v. also Agric. [Prof.
Stoner, E. C., B.A., Ph.D. Camb.	Garstang, W., M.A., D.Sc. Ox.
Reader.	Lloyd, Ll., D.Sc.
Ewles, J., M.A. Camb. Lectr.	Reader (Entom.).
Long, F. A., B.Sc. Lond. Lectr.	King, Mrs. W. O. R., B.Sc.
Asst. Lectrs. and Demrs.:	Asst. Lectr.
Brindley, G. W., M.Sc. Manc.	Henson, H., B.Sc. Birm.
Pollard, E. C., B.A. Camb.	Asst. Lectr & Demr.
Spiers, F. W., B.Sc. Birm. Demr.	Thomas, J. A. Moy, B.A. Ox.
Roberts, J. E., Ph.D. (R.).	Demr.
2 Asst. Demrs.	Dennell, R., B.Sc.
Physiology and Histology	Asst. Demr. (R.).
	Payne, Mrs., B.Sc. Liv.
McSwiney, B. A., B.A., Sc.D.,	Hon. Demr.
M.B., Ch.B. Dubl. Prof.	
Huggett, A. St. G., D.Sc., Ph.D.,	
M.B., B.S. Lond., M.R.C.S., L.R.C.P. Reader (Pharm.).	Agriculture
	Coton D C D Co Edin Duct
Winfield, G., M.A. Camb. Lectr.	Seton, R. S., B.Sc. Edin. Prof.
Brown, G. L., M.Sc., M.B., Ch.B.	Lectr.
Manc. Lectr.	Robertson, G. C. A., M.C., M.A.,
Wormall, A., D.Sc., A.I.C. (Bio-	B.Sc. Aberd. Lectr.
Chem.) Lectr.	Asst. Lectrs.:
Hopkins, S. J., B.Sc. Lond.	Bywater, T. L., B.Sc. Wales.
Demr. (Bio-Chem.).	Moore, H. I., B.Sc., N.D.A.
Spurrell, W. R., B.Sc., M.S. Lond.,	District Lectrs.:
F.R.C.S. Demr.	Thompson, H., B.Sc. Manc. and
Dickinson, Mrs. H. D., M.A. Camb.,	Leeds.
M.R.C.S., L.R.C.P. (R.).	Strachan, J., M.A., B.Sc. Aberd.,
Harrison, J. S. (R.).	N.D.A.
Killick, Miss E. M., B.Sc., M.B.,	Robb, J., B.Sc. Aberd.
Ch.B. (Temp. R.).	Findlay, D. H., B.Sc. Glas.,
(R.).	N.D.A., N.D.D.
Flint, E. R., M.B., Ch.B., F.R.C.S.	Gibson, W. S., B.Sc.
(Histology) (C.).	Gelling, W. E., B.Sc., N.D.A.
Russian History and Music	Bates, A. B., B.Sc., N.D.A.
Frere, Rt. Rev. W. H., D.D.,	Ballardie, W. W., B.Sc. Durh.
Litt.D. Hon. Lectr.	N.D.D.
Russian Lang. and Lit.	N.D.D.
····· Prof.	Agric. Botany
Kolni-Balozky, J.	Millard, W. A., D.Sc. Bris. Lectr.
Lectr. (Actg. Hd.).	Burr, S., M.Sc. Lectr.
( 8/-	.,,
(R.) = Research Asst.	(C.) = Clinical Lectr.
( ) /	() — o-marcan 2000a.

Jones, A. Powell, M.Sc. Wales	Bowes, H. G., F
Chalmers, C. H., B.Sc. Edin., N.D.A.	10 Instrs. and
Turner, Dorothy M., B.Sc. Demr.	Dairying,
Demr.	Farriery, ar
Agric. Chemistry	Med
Comber, N. M., D.Sc. Lond., A.R.C.S., F.I.C.	(for subjects of f
(Dean of Tech. Fac.) Prof.	etc., v
Jones, H. Trefor, M.Sc. Wales,	Anæsthetics
A.I.C. Lectr.	Rowling, S. T., 1
Asst. Lectrs.: Willcox, J. S., B.Sc. Lond., A.I.C.	Bacteriology, v
Marshall, C. E., M.Sc., Ph.D.	Cancer, v. Pat
Manc.	Forensic Med.
Agric. Economics	Eurich, F. W., 1
Ruston, A. G., B.A., B.Sc. Lond.,	Infectious Dis
D.Sc. Lectr. Witney, D., B.Com. Asst. Lectr.	Anderson, J.
Nicholls, H. E., B.Sc. Res. Asst. Miller, T. E., N.D.A. Stud. Asst.	D.P.H. Abe
Miller, T. E., N.D.A. Stud. Asst.	Materia Med., Medicine and
3 Costings Clerks.	Telling, W. H. M
Agric. Engineering	Lond., F.R.
Mackay, I. M., B.Sc. Edin. Asst. Lectr.	Watson, G. W F.R.C.P.
Agric. Zoology	Vining, C. W.
Taylor, T. H., M.A., R.U.I. Lectr.	F.R.C.P., D
Johnson, L. R., B.Sc. Asst. Lectr.	Prof. (Dise
Dairy Husbandry McGregor, J., B.Sc. Glas., N.D.A.,	Ingram, J. T., M Lect
N.D.D. Lectr.	Tattersall, N., M
Asst. Lectrs.:	Lec
• • • • • •	MacAdam, W., I Ch.B. Glas.,
*****	Leo
Horticulture Grainger, J., B.Sc., Ph.D. (Hort.	1
Botany) Asst. Lectr.	Garland, H. G., 1 Med. Tut
Poultry Husbandry	Moll, H. H., M.D
Goode, C. W., N.D.A., N.D.D.	Pttime
Lectr.	Hon. & Th
Asst. Lectrs.: Carter, Margaret J., B.Sc. Birm.,	Mental Diseas
at D D	Dalton T C M

Asst. Lectrs.:

N.D.P.

Millar, Ishobel McL., N.D.D.

Veterinary Hygiene F.R.C.V.S. Lectr. l Asst. Instrs. in Hortic., Poultry, nd Bee-keeping. dicine first 2 yrs.—Anat., v. supra) M.D. Lectr. v. Path th. M.D., C.M. Edin. Prof. seases S., M.A., M.D., (C.). , v. Therap. Clin. Med.

faxwell, M.D., B.S. .C.P. (C.) Prof. .V., M.D. Lond.,

(C.) Prof. ., M.D., Lond., D.P.H.

eases of Children). M.D., M.R.C.P.

tr. (Skin Dis.) (C.).

M.D. Lond. ctr. (Tuberculosis).

M.A., B.Sc., M.D., , M.R.C.P.

ectr. (Dietetics and Metab. Med.) (C.).

M.D., M.R.Ć.P. tor and Registrar.

D., Ch.B., M.R.C.P. ne Med. Tutor and . Demr. in Pharm.

Mental Diseases

Bolton, J. S., M.D., D.Sc. Lond., F.R.C.P. Prof.

Obstetrics and Gynæcology Happold, F. C., M.Sc. Manc. Gough, W., B.Sc., M.B., B.S. Demr. Lond., F.R.C.S. Hickman, Miss E. M., M.Sc., M.D. Demr. (Gynæc.) (C.) Prof. Claye, A. M., M.D., M.R.C.S., Thomson, J. G., M.B., Ch.B. L.R.C.P. (Obst.) (C.) Prof. Aberd. Demr. Young, W. M., M.A., M.D. Glas. Terry, J. O., M.B., Ch.B. Demr. Wheatley, Bertha, M.B., Ch.B. Adamson, Mrs. R., M.D., B.S. Demr. (pt. time). Lond. Lectr. (Obst.) (C.). Cattley, R., M.B., C.M. Edin., Jeaffreson, B. L., M.D. Lond., B.Sc., D.P.H. Camb. Hon. Fellow. F.R.C.S., L.R.C.P. Tutor. Burrow, J. le F. C., M.B. Edin. (C.) Ophthalmology Hon. Demr. in Med. P. Lee, H., B.A., M.B., B.Ch. Camb., Richardson, A., M.B., B.S. Lond., F.R.C.S. Lectr. (C.). F.R.C.S. Hon. Demr. in Surg.P. Lodge, S. D., F.R.C.S. Lectr. (C.). Stewart, Mrs., M.B., B.S. Lond. Hon. Demr. Otology Bain, E. W., M.B., B.S. Lond., Cancer Research: F.R.C.S. Young, J. S., M.C., M.A., B.Sc., Lectr. (C.). Munby, W. M., Ch.M. Edin., M.D. Glas. Lectr. in Exp. Path. and F.R.C.S. (C.). Asst. Dir. Pathology and Bacteriology Havard, R. E., B.A., B.M., B.Ch. Stewart, M. J., M.B., Ch.B. Glas., Lectr. (Bio-Chem.). F.R.C.P. (Path.) (C.) Prof. Bonser, Mrs. K. J., M.D. Manc., McLeod, J. W., O.B.E., M.B., Ch.B. Glas. M.R.C.S., L.R.C.P. Fellow. Kendal, L. P., M.Sc. Manc. Brotherton Prof. of B. Fellow. Passey, R. D., M.C., M.D., B.S., Berenblum, I., B.Sc., M.B., Ch.B. D.P.H. Lond. Fellow. Prof. Exper. Path. and Fellow. Dir. Cancer Research. Spurrell, W. R., M.S. Lond., Fowweather, F. S., M.D., M.Sc. F.R.C.S. (R.). (p.t.). Liv., D.P.H. Leese, A., B.A. Camb. (R.) Temp. Reader (Clin. Chem. Path.). Pharmacology Gordon, J., M.D., D.P.H. Hon. Demr. . . . . . . Lectr. in B. Pharmacy, v. Therap. Polson, C. J., M.D. Birm. Public Health, v. also Path. Lectr. in P. Jervis, J. J., M.D. Edin., D.P.H. Carmichael, R., M.B., Ch.B. Edin. Lond. Prof. of P.H. Admn. Lectr. in P. Sutherland, P. L., M.B., Ch.B. Williamson, A. B. M.A. M.D. D.Sc. Glas. Edin. D.P.H. Hon. Demr. Lectr. (Path. of Indus-Radiology and Electro-Theratrial Diseases). peutics [Lectr. Sykes, J. G., B.Ch.D. Scargill, H. B., M.B., B.S. Lond. Lectr. (Dent. P. & Bac.). Cooper, G., B.A., M.D. Belf. Lectr.

Dental Histology

Prof.

Surgery and Clin. Surg.

Dental Radiology

Scargill, H. B., M.B., B.S. Lond.

Dobson, J. F., M.S. Lond., F.R.C.S. Russell, G. H. H., M.B., Ch.B., Armitage, G., M.C., M.B., Ch.M., L.D.S. Manc. Demr. (C.). F.R.C.S. Surg. Tutor. Orthodontia Pvrah, L. N., M.B., Ch.M., M.Sc., Wilkinson, G. L., M.R.C.S., F.R.C.S. Surg. Tutor. L.R.C.P., L.D.S. Lectr. (C.). Daw, S. W., M.B., B.S. Lond., Dental Surgery F.R.C.S. Lectr.in Orth.S.(C.). Read, T. T., F.R.F.P.S. Glas., Braithwaite, L. R., M.B., Ch.B. L.R.C.S., Manc. and Leeds, F.R.C.S. L.R.C.P. Edin.. L.D.S. Glas. Dir. of Surg. Res. (C.). (C.) Prof. & Warden. Surgery, Clinical Child, C. H., M.B.E., D.D.S., L.D.S. Collinson, H., C.B., C.M.G., D.S.O., Lectr. (C.). T.D., M.B., M.S. Lond.. Hey, S. D., L.D.S. Lectr. (C.). F.R.C.S. Prof. Other Lectrs.: Moir, P. J., M.C., M.B., Ch.B. Glas., F.R.C.S. Lectr. (C.). Marston, W., M.Sc., L.D.S. (C.).lles, G. D., L.D.S. Symons, H. W., M.B., Ch.B., (C.). F.R.C.S. Lectr. (C.). Crawford, J. K., L.D.S. (C.). Cocker, J. P., L.D.S. (C.). Chamberlain, D., M.B., Ch.M., Sykes, J. G., B.Ch.D. (C.). F.R.C.S. Lectr. (C.). Ravenscroft, H. J., L.D.S. (C.). Therapeutics, Pharm., and Mat. 4 Hony. Clin. Tutors. Med.Hon. Anæsthetists: Veale, R. A., B.A. Ox., M.D., B.S. Wilson, Kathleen, M.B., Ch.B. Lond., F.R.C.P. Melvin, R. G., M.A., M.B., Ch.B. (Lectr. in Clin. Med.) Prof. Aberd. Anning, J. J., L.M. Lectr. Pharm. and Mat. Med. Dentistry, Clinical Hollings, M. R., B.Ch.D. Vaccination Demr. Greaves, F. W. M., M.D., D.P.H. Green, A. H., L.D.S. Prosth. Demr. Instr. Sykes, J. G., B.Ch.D. Venereal Diseases Ravenscroft, H. J., L.D.S. Tutor. Bibby, J. P., M.B., Ch.B., Leigh, I., L.D.S. Asst. Cas. Off. M.R.C.P. Rogerson, E. A., L.D.S. (C.). House Surg. Dentistry Dental Anatomy and Physiology Technology Mawer, J. W., L.D.S. Lectr. & (C.). v. also Agr., Engin., Mining Dental Mechanics [Lectr. (C.). Thorburn, W. S., M.Sc., L.D.S. Coal, Gas, and Fuel Industries Watt, G. V., L.D.S. with Metallurgy Dental Metallurgy Cobb, J. W., C.B.E., B.Sc. Leeds Lowson, W., B.Sc. Lond. and and Lond., F.I.C. Livesey Prof. Leeds, F.I.C. Hodsman, H. J., M.B.E., M.Sc., Lectr.

Lectr.

F.I.C. (Gas Chem.)

Summers, P. F., A.R.S.M. (Metall.)

Lectr.

Lectr.

Roberts, A. L., Ph.D. (Refractory Materials) Asst. Lect. & (R.).		
Gas Research:		
Wood, J. W., M.Sc. Tech. Manc.		
Dent, F. J., Ph.D.		
Blackburn, W. H., Ph.D.		
Kelly, A. R., B.Sc. Lond.		
Key, A., Ph.D.		
Williams, N. H., M.Sc.		
Parrish, E., M.Sc. Manc.		
Etheridge, W., B.Sc.		
Davey, W. J. G., B.Sc. Liv.		
Milner, G., B.Sc.		
Bolland, C. B., B.Sc.		
Colour Chemistry and Dyeing		
Rowe, F. M., D.Sc., F.I.C. Prof.		
Forster, R. B., Ph.D. Berl., D.Sc.,		
N.U.I., F.I.C., A.R.C.S.I.		
Lectr. in Colour Chem.		

King, P. E. (Dycing) A.I.C. Lectr. Cross, E. J., B.Sc. Lond. Asst. Lectr. Giles, G. H., B.Sc. (R.). Peters, A. T., M.Sc., Ph.D. Manc.

(R.).

Leather Industries

McCandlish, D., M.Sc. (Applied
Chem.)

Prof.

Atkin, W. R., M.Sc.

Lectr.

Thompson, F. C., M.Sc. Lectr. Singleton, F., B.Sc. Lond. (R.). Procter International Research Laboratory:

..... Hon. Director. Thompson, F. C., M.Sc. (R.).

Textile Industries Barker, A. F., M.Sc. Prof. Lectr. Hollis, T. Yewdall, A. Lectr. Pickles, F. Lectr. Speakman, J. B., D.Sc. Manc. ,, Astbury, W. T., B.A. Camb. ,, Farley, W. A. Asst. Lectr. Priestley, G. Asst. Lectr. Woods, H. J., B.A. Ox. (R.). Chamberlain, N. H., Ph.D. (R.). Barker, S. G., Ph.D. Berlin (Dir., Res. Students at Torridon). Denham, W. S., D.Sc. (Dir., Silk Res. Students).

### University Extension

Staff Tutors: Stewart, D., M.A., N.U.I.; Walker, N.; Williams, J. R., B.A.; Johnson, L. G., B.A. Sheff.; McCulloch, F. J., B.A.; Ayerst, D. G. O., B.A. Ox.

(R.) = Research Asst.

### AFFILIATED COLLEGES

College of the Resurrection, Mirfield (Warden—G. Rees, M.A.) and Rawdon College (Principal—A. C. Underwood, D.D.). Students are exempt from attendance at the Univ. in the first yr. for B.A.

Technical College, Huddersfield (Prin.—J. F. Hudson, M.A., B.Sc.). Similar exemption for B.A., B.Sc. (including Engin.), and M.B. and Ch.B.

DIOCESAN TRAINING COLLEGE, YORK. Similar exemption for B.A., B.Sc.

PRINTING DEPARTMENT OF THE LEEDS CENTRAL TECHNICAL SCHOOL. Classes recognized as part of course for the B.Com.

#### GENERAL INFORMATION

The Leeds School of Medicine, founded 1831, and Yorkshire College, established as a College of Science in 1874, were united in 1884. The College formed part of the Victoria Univ. from 1887 to 1904, when a Univ. was established by Royal Charter in the city of Leeds.

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Library, including that of the Medical School and of the Dept. of Agriculture, about 126,834 books, 41,355 pamphlets. Besides the General Library, there are separate rooms devoted to Science, Agriculture, English, French, German, Classics, Economics, Philosophy, History, Law and Music. Special collections: (a) MSS. illustrating developments in textile industry about 1800; (b) 2000 vols. in French on Great Britain, printed before 1801; (c) 264 vols. contemporary records (Journal Officiel, newspapers of Metz, Strasbourg, and Nancy, etc.) of political events in France during 1870 and 1871; (d) an Icelandic and Old Norse collection of 6628 vols.

Museums: Anatomy, Dyeing, Materia Med., Path., Textile, Zool. Laboratories: Agricultural Chemistry, Botany, Chemistry, Colour Chem. and Dyeing, Engin. (Elec., Civ., Mech.), Geol., Leather Industries (including Procter Internat. Research), Maths., Metallurgy, Mining, Path. and Bacteriology, Cancer, Physics, Physiol., Textile, Zool. Observatory, 18½" reflector telescope. Farm, 348 acres, including Poultry School. Hospitals available for Clinics: Infirmary (630 beds) and several others; Asylum (2000 inmates).

FACULTIES. Arts (including Economics and Law), Science, Technology [including Agric., Coal Gas and Fuel with Metallurgy, Colour Chemistry and Dyeing, Engineering (Civ., Elec., Mech.), Leather Industries, Mining, Textile Industries], Medicine (including Dentistry). Deans: Profs. Hughes (Arts), Gilligan (Science), Comber (Technology), Jamieson (Medicine).

In connexion with each of the technological departments there is an Advisory Committee, which includes representatives of the industry concerned.

MATRICULATION. See Appendices XX. and XXI. An Overseas Students' Committee has been appointed.

DEGREES. Obtainable after a 3 yrs.' course starting from matricn.—B.A., B.Sc. (Honours degree usually 4 years), B.Com. (which may be taken with an Applied Science as one of the principal subjects: 3 yrs. for degree, or 4 yrs. including Diploma of Printing Dept. of Leeds Tech. Coll.); LL.B. (3 yrs.); after 5½ to 6 yrs., M.B., Ch.B., B.Ch.D.

Subject to a minimum attendance in this Univ. of 2 yrs., members of other Univs. requiring residence as a condition of graduation may be permitted to count their studies and examns. (other than the Final examn.) therein towards graduation in Leeds.

Mining students receive practical instruction in mines under arrangements made with local owners, but the courses are not intended to supersede the usual apprenticeship.

Hons. students of Mod. Langs. (French, German, Russian, Spanish) normally

spend 3rd term of 2nd year at some approved foreign Univ.

Supplementary Textile studies may be combined with a B.A. or B.Com. course. Any of the Tech. subjects may be taken in a B.Sc. course. The Law Dept. prepares students for the Bar and Solicitors' examns. as well as for the Univ. degrees.

HIGHER DEGREES. M.A., LL.M., M.Com., M.D., Ch.M., I yr.; M.Ed., M.Sc., 2 yrs. (for holders of Hons. B.Sc., I yr.) after the bachelorship. Graduates of approved Univs. (all the chief Univs. of the world, including institutions recognized by the Assocn. of Amer. Univs., v. App. XXVI.) may obtain the M.A., Ph.D. (v. p. 17), or M.Sc. by 2 yrs. of research. M.A., Ph.D. or M.Sc. of this Univ. may obtain the Litt.D. or D.Sc. 6 yrs. after the bachelorship.

Graduates of other Univs. who have been admitted to degrees of equal or similar rank in Leeds may, in proceeding to higher degrees, count their standing as graduates from the date of original graduation.

DIPLOMAS. In Education (grads.) or Ed. Admn., r or 2 yrs. In Social Organization and Public Service and in Public Administration, 2 yrs. In Engin., Fuel and Metall., Dyeing, Textiles, Leather, Agric., 3 yrs., reducible under certain conditions to 2. In Gas Engin. or Fuel and Metall., special for graduates, 1 yr.; for apprentices, part-time, 4 yrs. In Colour Chem. and Dyeing, for apprentices, part-time, 5 yrs. In Public Health, r2 mos. In Psych. Med., 6 mos. In Nursing, involving 4 yrs.' hospital training and 3 mos.' lectures. In Dent. Surg., 4 yrs., including 2 in Univ. In Commerce, 1 yr. (postgrad.).

EVENING COURSES for advanced students in Technological subjects are conducted in co-operation with the Leeds and West Riding Education Committees.

FEES. Matrien., £2. Registration, £2. Composition fees for tuition (including Union): Arts, £34 a session; Law, £14:11s.; Science, £42; Technology, £46; Agric. (other than degree students, who pay the Technol. fee in the 2nd and 3rd yrs.), £31. Course for Dipl. in Educn., £43 p.a.; Dipl. in Social Organization, £27 p.a. Medicine: complete course for M.B., including hospl. practice, £260. Dentistry (including hospl. practice and pupilage): Dipl., £247; Degree, £280. Research fee, £17 a session. Examns.: Arts, Science, etc., £6; Medicine (including graduation), £19; Dentistry, B.Ch.D., £16; L.D.S., £16. Graduation fee, £7.

Post-graduate Scholarships, etc. Fellowships for research in Gas and Col. Chem. Textiles, see App. XXIII. Also, for graduates of the Univ., £150 for 2 yrs. for research and advanced study; £150 for 2 yrs. for research in English, or History, or Economics; £100 for research in Chem. or Pharm.; £70 Scholp. for research in Arts Faculty; £125 for higher Humanistic study, for graduates of Leeds or Sheffield; £45 for advanced study in Greek or Latin; £140-£160 (two) and £60, Colour Chem. and Dyeing; £140-£160 (six) and £20 (three), in Textile Dept.; £25, Forensic Med. and Hygiene.

RESIDENCE. One hostel for 140 men and 4 for women. Fees, men £64, women £54 to £63 per session of 32 weeks. A site of 160 acres on the outskirts of the city has been acquired for hostels for men and women students.

APPOINTMENTS BOARD. Secretary: W. R. Grist, B.Sc. Lond.

An Old Students' Assocn. was formed in 1923.

UNIVERSITY EXTENSION. Lecture courses and Tutorial classes are provided in co-operation with the Workers' Educul. Assocn. and Local Education Authorities, and an Annual Summer School in connexion therewith was instituted in 1919.

Summer Schools are arranged from time to time.

In connexion with the Agric. Dept. a considerable part of the time of lecturers of the Univ. is devoted to work in local centres.

Publications. Calendar (Sept.), 4s.; Annual Reports of the Univ. and of Tech. Depts.; List of Researches, etc.; Gryphon, 3s. annually (students' magazine); Union Handbook; Prospectuses of various Depts.

### THE YEAR 1930-31

BENEFACTIONS. Appeal Fund (Sept. 1931), £424,180. £1290 p.a. from the West Yorkshire Coal Owners' Assn. for research in the Econ. Dept. Legacy of £100,000 from Lord Brotherton. £40 from Fed. of Curriers, Light Leather Tanners and Dressers. £2000 from Mrs. Percival Leigh for scholarships in Music. Skulls for Dental School Museum. Collection of Insect Carriers of

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Disease from Imperial Institute of Entomol. Billiard table from Mr. Chaston Chapman. Chinese congratulatory scroll from Mr. H. W. Sharples, and many valuable gifts to the Library.

NEW BUILDINGS AND EQUIPMENT. New gymnasium opened by Lord Hawke in March 1931. New building for Physics Dept. completed Sept. 1931. Pathological Institute and Chemistry buildings in progress.

New Posts. Professorship in Clin. Dental Surg; Professorship of Gynæcol. and Professorship in Obstetrics (in place of joint chair in the two subjects); Asst. Lectureship in Hist.; Demonstratorship in Agric. Bacteriol.

CHANGES IN REGULATIONS, ETC. Various amendments of Ordinances and Regulations.

University Extension Courses at 19 centres, 58 Tutorial Classes; Tutorial Class Summer School at Saltburn; Course of 8 public lectures on "The Biblical Doctrine of Divine Personality"; 5 advanced science lectures; 2 on Persian Art; 3 on the "History of Theatrical Art"; 7 literary lectures; 3 lectures on "The Structure of the Solid State of Matter"; 2 lectures on "Debussy" and 1 on Virgil; 10 midday music recitals. 669 lectures given in county by Agricultural Department in addition to 15 organized courses in Agriculture and Horticulture; 35 ten days' courses in butter- and cheesemaking; 4 classes in hedging and walling; 3 classes in dressmaking and 1 in cookery; 85 free popular lectures given by members of staff at various centres in the University area.

OTHER DEVELOPMENTS. Introduction of staff grading and salary scales; Centenary of Medical School celebrated July 1931; interchange of students with Univ. of Marburg; institution of Dipl. in Public Administration.

RESIGNATIONS. Prof. E. V. Gordon, on appointment as Prof. of English Lang. and Germanic Philol. at Manchester Univ.; Miss Silcot, on retirement; Mr. H. F. Hallett, on appt. as Prof. of Philos. at King's College, London; Dr. Channon, on appt. as Prof. of Bio-Chem. at Liverpool Univ.; Mr. G. W. Gibson, on appt. as Education Officer for Yorkshire under the B.B.C.; and various Asst. Lectrs., etc., on appt. to other institutions.

Honorary Degrees. *LL.D.*—Dr. Alfred George Barrs, Lord Dawson of Penn, Dr. Arthur Hawkyard, Sir George Newman, Sir John Bland Sutton, Dr. Jane Walker. *D.Sc.*—Sir Walter Fletcher, Sir Frederick Gowland Hopkins.

STUDENTS. Full-time: total, 1510, including 221 graduates. Part-time, 374, including 29 graduates.

DEGREES. B.A., 101; B.Com., 10; LL.B., 13; M.A., 17; M.Ed., 7; M.Com., 1; B.Sc., 104; M.Sc., 10; Ph.D., 27; D.Sc., 1; M.B., Ch.B., 28; B.Ch.D., 2; M.D., 4.

# UNIVERSITY OF LIVERPOOL

VISITOR-H.M. THE KING.

CHANCELLOR-Rt. Hon. the Earl of Derby, K.G., G.C.B., G.C.V.O., LL.D.

Pro-Chancellors-Sir H. Wade Deacon, C.B.E.; C. Sydney Jones, M.A.

VICE-CHANCELLOR-H. J. W. HETHERINGTON, M.A., LL.D.

TREASURER-R. H. ARMSTRONG.

See under "General Information"—Faculties. DEANS OF FACULTIES.

REGISTRAR-EDWARD CAREY, LL.B.

ASSISTANT REGISTRAR—S. DUMBELL, M.A.

LIBRARIAN— Associate Prof. W. GARMON JONES, M.A.

### PROFESSORS, LECTURERS, ETC.

[Derby Prof. Anatomy Wood, W. H., B.Sc., M.D. Manc. Lectrs.:

Nuttall, H. C. W., F.R.C.S., D.P.H. (Appl. Surg. A.).

..... (Appl. Med. A.).

Jones, Tudor J., M.B., Ch.B. (Embryol.).

King, T. S., M.B., Ch.B. Demr. Archæology, v. also Palæog. and Associated Institutions

Droop, J. P., M.A. Camb. (Classical A.) C. W. Jones Prof. Peet, T. E., M.A. Ox. (Egyptology)

Brunner Prof. Garstang, J., M.A., D.Sc., B.Litt. Ox., LL.D., F.S.A. (Methods

and Practice of A.) Rankin Prof.

(Mediæval A.) Reader. Newberry, P. E., M.A. (Egyptian Reader.

Architecture, v. also Civ. Design, Engin.

Reilly, C. H., O.B.E., M.A. Camb., Roscoe Prof. F.R.I.B.A.

Budden, L. B., M.A., F.R.I.B.A. Assoc. Prof.

Scott, Sir Giles G., LL.D., R.A., F.R.I.B.A. (Eccl. Archit.) Reader.

Marshall, J. E., B.Arch. Sr. Lectr. Cole, E. R. F., B.Arch., F.R.I.B.A. Lectr.

Miller, B. A., B.Arch. ,, Dougill, W., M.A., B.Arch.

Velarde, F. X., Dipl. Arch. Nunn, J. P., B.A. ., Allen, J. S., B.Arch.

,, Todd, A. C., Dipl. Arch. Thearle, H., Dipl. Arch.

Brooke, D., M.A., B.Arch. ,, Ferriby, E. A., B. Arch. Penn, W. C., R.O.I. (Drawing

from the Life) Instr. Smith, H. Tyson

Hon. Instr. in Craftsmanship. Art of the Theatre

Craig, E. Gordon Shute Lectr. Astronomy

Reader. . . . . . .

Bacteriology, v. Med.

Morton, R. A., Ph.D., D.Sc. (In-Bio-Chemistry [Johnston Prof. Channon, H. J., B.A., D.Sc. Lond. Coope, R., B.Sc., M.D., M.R.C.P., McGookin, A., Ph.D., B.Sc. (Org.). Rogerson, H., M.Sc. Vict., F.I.C. (Clin. Chem.) Lectr. Demr. (Inorg.) Asst. Lectrs. : Collin, G., B.Sc., Ph.D. (Indust.) Folley, S. J., M.Sc., Ph.D. Manc. Demr. Loach, J. V., Ph.D., B.Sc., Birm. Chemistry, Pub. Health Brookfield, R. W., M.D., D.P.H. Roberts, W. H., M.Sc., F.I.C. M.R.C.S., M.R.C.P. Assoc. Prof. Johnston Colonial Fellow. Jones, E. Gabriel, M.Sc., F.I.C. Botany Lectr. Thompson, J. McLean, M.A., D.Sc. Smith, F. J., B.Sc., F.I.C. Lectr. Glas., F.L.S. Civic Design H. Gaskell Prof. Abercrombie. L. P., M.A., Knight, Margery, D.Sc., F.L.S. F.R.I.B.A. Lever Prof. Sr. Lectr. Special Lectrs.: Demrs. and Lectrs.: Stirling, J., B.Sc. St. And. Kelly, S. A., F.S.I. (Civic Engin.). Mathias, W. T., M.Sc. Wales. Horton, W. Mattocks, R. H. (Landscape Design). Hon. Lectr. in Plant Path. Clarke, J. J., M.A., (Law of Housing and Town Planning). Chemistry, v. also Bio-C. Dougill, W., M.A., B.Arch., Baly, E. C. C., C.B.E., M.Sc., A.R.I.B.A. Research Fellow. F.R.S. (Inorg. C.) Grant Prof. Classics Heilbron, I. M., Ph.D. Leip., D.Sc. Campbell, A. Y., M.A. Camb. Glas., F.R.S., F.I.C. (Greek) Gladstone Prof. H. Harrison Prof. (Org. C.). Fletcher, G. B. A., M.A. Lectr. Lewis, W. C. McC., M.A. Belf., Slater, D. A., M.A. Ox., F.B.A. F.Inst.P. D.Sc., F.R.S., (Physical C.) Brunner Prof. (Latin) Onians, R. B., M.A., Ph.D. Hilditch, T. P., D.Sc. Lectr. (Latin). Prof. Campbell-Brown Cooper, C. G., M.A. St. And. Chem.— (Industrial Junr. Lectr. Fats. Waxes and Oils). Hartley, Mildred, B.A. Camb. Senr. Lectrs.: Asst. Lectr. Kay, F. W., M.Sc. Manc., Ph.D. [Chaddock Prof. Commerce Berl. (Applied Organic C.). Dewsnup, E. R., M.A. Manc. Guthrie, F. C., M.A. Camb., F.I.C. (Analytical C.). Lectrs.: Griffith, R. O., D.Sc., (Phys.). Miller, Margaret S., M.A., B.Com. Edin., Ph.D. (Econ.), Lond. Lectrs. and Demrs.: Campbell, C. D., B.Com., M.A. Edwards, D. M., B.Sc. (Inorg.). Taggart, P., F.S.A. (Accountancy) Shutt, W. J., M.Sc. (Phys.). Spl. Lectr. M'Keown, A., D.Sc. (Phys.). Mort, J. H. (Banking) Spl. Lectr. Doran, W., M.Sc. (Organ.). ..... (Ind. Traffic Management) Keffler, L. J. P., D.Sc. (Inorg.). Spl. Lectr. Nance, J. T., M.A. Ox. (Inorg.). Occleshaw, V. J., M.Sc. (Inorg.). Dentistry, v. infra

Economic Science, v. also Com. Esperanto Bellerby, J. R., M.A. Camb., Collinson, W. E., M.A. Lond., B.Com. Leeds Brunner Prof. Ph.D. Buchanan Lectr. Macdonald, R. A., M.A. *Fisheries*, v. Ocean. Senr. Lectr. [J. Barrow Prof. French Henderson, W. O., M.A. Camb. Eggli, J. E., Ag. des L., D. ès L. Junr. Lectr. in Ec. Hist. Renault, G. E., B. ès A. Dijon Education, v. also Hist., Physics Senr. Lectr. Campagnac, E. T., M.A. Ox. Prof. Mayoux, J., Ag. d'Ang. Lectr. Brigstocke, W. O., B.A. Lond. Wright, Jean, M.A. Senr. Lectr. Moffat, Margaret M., M.A., Dr. de Lectrs.: l'Univ. Paris Junr. Lectr. Collie, Frances A., M.A. Wales. 3 French Tutors. Kermode, Helen S., M.A. Geography, v. also Geol. Attlee, C. M., B.A. Ox. Roxby, P. M., B.A. Ox. Pollitt, A. W., Mus.Doc. Durh., Rankin Prof. F.R.C.O. Smith, W., M.A. Lectr. Tozer, A. H. D., B.A., Camb. Baker, S. J. K., B.A. Junr. Lectr. Winchester, Lily, M.A., Spl. Lectr. Varley, W. J., B.A. Wales Teachers of Drawing: Junr. Lectr. Laverock, Florence H. Rodgers, D. D. E., B.A. Cameron, Elizabeth L. ..... (Cartographer) Butler, Dorothy. Geology White, W. W. H. H., D.Sc. Lond., Read, Assts. in Method: A.R.C.S., F.G.S. Milne, Susan. Herdman Prof. Harris, A. E. Lectrs. and Demrs.: Roberts, Hilda F. Double, I. S., M.Sc. Instruc. Phys. Training. Neaverson, E., D.Sc. (Palæont.). Engineering, v. infra German Collinson, W. E., M.A. Lond., English Lang. and Philol. Grattan, J. H. G., B.A. Lond. Ph.D. (also Hon. Lectr. in Baines Prof. Comp. Philol.) Prof. Wales. Schram, O. K., M.A. Picton, Ænid, B.A. Wales Lectr. Ph.D. Camb. Lectr. Hebrew, v. Affild. Instns. English Lit. Hellenistic Gk., v. Affild. Instns. Martin, L. C., B.Litt., M.A. Ox. [Assoc. Prof. History King Alfred Prof. Jones, W. Garmon, M.A. A. C. Bradley Prof. Hist., Ancient Shawcross, J., M.A. Ox. Ormerod, H. A., M.C., M.A. Ox. Senr. Lectr. Rathbone Prof. Trenery, Grace R., M.A. Lectr. History, Eccl., v. Affild. Instns. McIlwraith, A. K., M.A., Ox. D.Phil. Ir. Lectr. History, Mediæval Jones, Doris C., M.A. Tutor. Coopland, G. W., B.Sc. Lond., Entomology [Dutton Prof. M.A., Litt.D. Assoc. Prof. Patton, W. S., M.B., Ch.B. Edin.

Evans, Alwen M., D.Sc. Lectr.

McKisack, May, M.A., B.Litt. Ox.

Lectr.

History, Modern

Italian

Veitch, G. S., M.A., Litt.D.

Praz, Mario, D.Litt.

Dr. Jur. Rome

A. Geddes & J. Rankin Prof.

Senr. Lectr.

Florence,

Senr. Lectr.

Routledge, F. J., B.Litt. Ox., M.A.

Howden, Marjorie P., M.A. Lectr.

Gibbs, N. H., B.A. Ox. Jun. Lectr.

Law, v. also Civic and Engin.

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Jenkins, J. T., D.Sc. Lond., D.Sc.

Lectr.

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Wales, Ph.D. Kiel (Sea Fisheries) Hon. Lectr. Chadwick, H. C., M.Sc. (Marine Biol.) Hon. Lectr. Palæography and Diplomatics Twemlow, J. A., M.A. Ox. Assoc. Prof. Parasitology Blacklock, D. B., M.D., D.P.H., D.T.M. W. Myers Prof. Southwell, T., D.Sc., Ph.D. Lectr. (Helminthology). Philology, Comparative, v. Ger-Dorward, A. J., M.A. Edin. and Reid, L. A., M.A. Edin., Ph.D., Senr. Lectr. Turner, J. E., M.A., Ph.D. Reader Philosophy of Religion Bowman, Prof. A. A., M.A., Litt.D. Forwood Lectr. [L. Jones Prof. Wilberforce, L. R., M.A. Camb. Rice, J., M.A. Belf. (Spl. Lectr. in Assoc. Prof. Lectrs. and Demrs.: Edwards, E., B.Sc. Wales, M.A. Roberts, R. W., D.Sc. Winstanley, J. W., B.Sc. Beevers, C. A., M.Sc. Oliver Lodge Fellow. Macdonald, J. S., M.A. Camb., Holt Prof.

Mullen,

Welsh

A. L.,

Owen, E., M.A., F.S.A.

D.V.S.M. Manc., Vet. Adviser.

Davies, J. Glyn, M.A. Assoc. Prof.

(Welsh Mediæval Antiq.) Reader.

M.R.C.V.S.,

Wadsworth, T. W., M.D., D.P.H.

Tozer, Frances M., B.Sc. Lond.

(Histology and Cytology).

L.R.C.P. (Histology).

(Appl. Physiol.). Walker, C. E., D.Sc., M.R.C.S.,

Pratt, C. L. G., M.D. Holt Fellow. Zoology, v. also Entom., Ocean., Parasit., Protoz. Protozoology Lectr. Orton, J. H., D.Sc. Lond., F.L.S. Derby Prof. Public Administration Burfield, S. T., M.A. Camb., M.Sc., Simey, T. S., B.A. Ox. Lectr. F.L.S. Sr. Lectr. Russian Studies Lectrs. and Demrs.: Boswell, A. B., M.A. Bisbee, Ruth C., M.Sc., F.L.S. Bowes Prof. of R. Hist. Fordham, Mahalah G. C., M.Sc. Lang. and Lit. W. Aus. Slepchenko, B. S. Recog. Teacher. Herdman, E. Catherine, M.Sc. Hon. Lectr. Social Science Carr-Saunders, A. M., M.A. Ox. Engineering Charles Booth Prof. Civil Engineering Jones, D. Caradog, M.A. Camb. Perrott, S. W., M.A.I. Dub. Prof. (Social Statistics) Sr. Lectr. Whitaker, H. A., B.Eng. Lectr. Black, Ellinor I., B.Sc. Lond. Hitchens, A. P., B.Eng. (also Lectr. Design and Draw.) Lectr. Wilkinson, Katie E. Spl. Tutor. Daymond, J. R., B.Sc. Wales Spanish Demr. Peers, E. Allison, M.A. Camb. and Dock and Harbour Engineering Gilmour Prof. Wilton, T. R., M.A. Camb. Lara, Maria V. de, Lic. en Hist. Assoc. Prof. Tempy. Lectr. Economics, Applied Vet. Science The Prof. of Econ. Lectr. Share-Jones, J., D.V.Sc., M.Sc., Electrical Engineering F.R.C.V.S., Dir. of Vet. Studies Marchant, E. W., D.Sc. Lond. Prof. of V. Anat. Jardine Prof. Gaiger, S. H., F.R.C.V.S., Prof. Teago, F. J., D.Sc. Durh. (Elect. (Diseases of Animals). Machinery) Rankin Prof. Lectrs.: Davies, G. O., M.V.Sc., M.R.C.V.S. Prescott, J. C., D.Eng. Annett, H. E., M.B.E., M.D., Brookes, R. C., B.A. Camb. D.P.H. Gill, J. F., B. Eng. Elam, C. W., D.V.H., M.R.C.V.S. Law, Engineering Hughes, H. V., B.V.Sc. Gordon, C. G. S., LL.B., Isherwood, R., M.R.C.V.S., Ad-M.I.Min.E. Lectr. ministrator, Vet. Hosp. В., O.B.E., Α. Mattinson, Marine Engineering F.R.C.V.S., D.V.S.M. Vict. Lectrs.: The Prof. of Mech. E., Shuttleworth, A. C., B.V.Sc., Res. the Prof. of Appl. Mech., the Surg., Vet. Hosp. Prof. of Nav. Arch.

Engineering and

Mechanical

Applied Mechanics

Cytology, v. also Physiology Walker, C. E., D.Sc., M.R.C.S.,

Applied Mechanics	Walker, C. E., D.Sc., M.R.C.S.,
Scholes, G. E., M.B.E., M.Sc. Manc.	L.R.C.P. Assoc. Prof.
Harrison Prof. (Mech. E.).	Tozer, Frances M., B.Sc. Lond.
Mason, W., D.Sc. Manc. (Applied	Lectr.
Mechanics) Hughes Prof.	Dermatology
Mawson, H., D.Sc. (Eng.) Lond.,	Stopford-Taylor, R., D.S.O., M.B.,
A.R.C.S.	Ch.B., F.R.C.S. Ed. Lectr.
(Mech. Engin. and Hy-	Diseases of Children
draul. Mach.)	Fordyce, A. D., M.D. Edin. Lectr.
Sr. Lectr.	Diseases, Infectious
Clark, J. J., M.Eng.	Rundle, C., O.B.E., M.D. Lond.,
(Design & Drawing). Lectr.	
Okill, J., M.Eng. Lectr.	D.P.H. Lectr.
	Diseases, Mental
Kearton, W. J., M.Eng. Lectr.	Reeve, E. F., M.B., B.S. Lond.
Cole, E. B., M.Sc. Bris. Lectr.	
Smith, G., B.Sc. Lectr.	Lectr.
	Diseases, Specific
Metallurgy	Ross, A. O. F., M.D. Ed., D.P.H.
Bannister, C. O., M.Eng., A.R.S.M.	Lectr.
(also Lectr. in Dental M.)	Forensic Medicine and Toxico-
Wortley Prof.	
Kennett, S. J., B.Sc., A.R.S.M.	logy [Prof.
	MacFall, J. E. W., M.D., D.P.H.
Jun. Lectr.	Jones, Tudor J., M.B., Ch.B.
Municipal Engineering	Demr.
Brodie, J. A., M.Eng. Assoc. Prof.	
	Hygiene
Naval Architecture	Prof.
Abell, T. B., O.B.E., M.Eng.,	(Practical San.) Lectr.
R.C.N.C. (ret.)	Lectrs. in Pub. Health Admn.:
A. Elder Prof.	
Wilson, J. C. M., M.Eng., R.N.C.	Hanna, W., M.A., M.D. Belf.,
	D.P.H. (Admn. and Vaccn.).
Lectr. & Demr.	Stallybrass, C. O., M.D., B.S.,
Railway Engineering	D.P.H.
Aspinall, Sir J. A. F., D.Eng.	
Assoc. Prof.	Laryngology
113500. 1101.	Forster, H. V., M.Sc., M.B., Ch.B.,
	F.R.S.M. Hon. Lectr.
Medicine	
	Materia Med., Pharmacy, Phar-
(for subjects of first 2 yrs.—Anat.,	macol. and Genl. Therap.
etc., v. supra)	Dilling, W. J., M.B., Ch.B. Aberd.
Bacteriology	Prof.
Beattie, J. M., M.A. N.Z., M.D.,	Brookfield, R. W., M.D., M.R.C.P.,
C.M. Edin. Prof.	D.P.H.
Lectrs.:	Lectr. (Practical Therap.).
Ashcroft, L. S., M.B., Ch.B.,	Sadler, Eileen S., M.Sc. Demr.
D.P.H.	
	Medicine
Gray, J. D. A., B.Sc., M.B., Ch.B.	Hay, John, D.L., M.D., F.R.C.P.
Edin. (Pub. Health Bact.).	Prof. & Clin. Lectr.
Twomey, Honora J., M.B., Ch.B.	Cohen, H., M.D., M.R.C.P. Lectr.
Garrett Intern. Fellow.	Chamberlain, E. N., M.D. Lectr.
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Pharmacology and Genl. Therap.,

Coope, R., M.D., B.Sc.

Museum Demr. v. Mat. Med. etc. Public Health, v. Hyg. and Clinical Lectrs.: Chem. Bligh, J. Murray, M.D. Capon, N. B., M.D., F.R.C.P. Radiology Gullan, A. G., M.D. Lond., F.R.C.S. Holland, C. T., D.L., Ch.M. Lectr. Jones, H. Wallace. M.Sc., M.D. Asst. Lectrs. : Pemberton, H. S., M.B. Mather, J. H., M.B., Ch.B., B.Sc., Matthews, J. C., M.A., M.D. Camb. D.M.R.E. Roberts, R. E., M.D., B.Sc., Midwifery and Gynæc. D.M.R.E. Murray, H. L., M.D. Aberd. Walker, Nora M., M.B., Ch.B. Prof. & Clin. Lectr. Hon. Asst. Lectr. Vict. Lectr. & Clin. Lectr. Asst. Lectr. Surgery Parker, R., M.B., B.S. Lond., Senr. Demr. Jnr. Demr. and F.R.C.S. Prof. Kelly, R. E., C.B., M.D., B.Sc., Boyce Fellow. F.R.C.S. Clinical Lectrs. : Prof. and Clin. Lectr. Burns, J. W., B.A., M.D. Dub., Jones, Sir Robert, Bart., K.B.E., F.R.C.S.E. C.B., Ch.M., D.Sc., F.R.C.S. Nicholson, Ruth, M.B., M.S., (Orthop.) B.Hv., D.P.H. Durh. Lectr. and Clin. Lectr. Robinson, A. L., M.D. Lond., Monsarrat, K. W., M.B., C.M. F.R.C.S. Edin. (Operative S.) Willett, J. H., M.D. Lectr. and Clin. Lectr. Wilson, J. St. G., M.B., Ch.M., Kennon, M.D., F.R.C.S. R., F.R.C.S. (Practical S.) Lectr. Neuro - Pathology of MentalWells, C. A., M.B., Ch.B., F.R.C.S., Diseases Watson, G. A., M.B., C.M. Edin. Reid, H., M.B., Ch.B., F.R.C.S., Hon. Lectr. L.R.C.P. Museum Demr. Furniss, R. A., M.B., B.S. Lond., Ophthalmology Chavasse, F. B., M.A., M.D., M.B., Ch.B. Liv. D.O.M.S. Ox. Lectr. Thelwall Thomas Fellow. Wardle, E. N., M.B., Ch.B., Pathology F.R.C.S. Lady Jones Fellow. Dible, J. H., M.B., Ch.B. Glas., Other Clinical Lectrs.: Holt Prof. F.R.C.P. Armour, T. R. W., M.B., C.M. Gleave, H. H., M.B., Ch.B. Leeds Edin., F.R.C.S. Senr. Lectr. Davies, C. O., M.B., B.S. Lond., Evans, W. Howel, B.Sc., M.D. F.R.C.S. (H.) Lectr. Davie, T. B., B.A., M.B., Ch.B., Dun, R. C., M.B., C.M., F.R.C.S., M.R.C.S., L.R.C.P. B.Sc. Heaney, F. Strong, M.A., M.D. Junr. Lectr. Pownall, Margaret, M.B., Ch.B., Dub. D.P.H. Manc. Junr. Lectr. Simpson, G. C. E., B.A., M.B., B.C. Camb., B.Sc., F.R.C.S. Collins, D. H., M.B., Ch.B., McMurray, T. P., Ch.M. Belf. M.R.C.S. Holt Fellow.

Morrison, J. T., M.B., Ch.B. Jeans, F. A. G., M.A., M.B., B.Ch. Camb., F.R.C.S. Williams, O. Herbert, M.B. Edin., F.R.C.S., D.P.H. Ox.

Wolfenden, H. F., M.D., F.R.C.S. Tropical Med.

Yorke, W., M.D., M.R.C.P. Sir A. Jones Prof.

Tropical Diseases of Africa
Gordon, R. M., M.D. Dub.,
D.P.H., D.T.M. Prof.

Tropical Sanitation
Russell, Lt.-Col. A. J. H., C.B.E.,
M.A., M.D.

Vaccination, v. Hygiene

#### Dentistry

Dental Surgery
Gilmour, W. H., M.D.S., L.D.S.,
LL.D. (Penn.) (Dir. of D.
Educn.) Cohen Prof.
..... Demr.
Anæsthetics

Anæsthetics
Smith, G. F. R., M.B., B.S. Lond.,
M.D. Lectr.
Ireland G., B.D.S. Demr.

D. Anat., Histol., and Physiol. Woods, J. A., M.D.S., L.D.S.

Guyler, T. W. C., B.D.S. Lectr. Demr.

D. Mechanics and Prosthetics Fenn, H. R. B., L.D.S., D.D.S.

Penn. Lectr. Leatherbarrow, H., L.D.S. Demr.

D. Metallurgy, v. Met.

Operative D. Surgery
Collinge, J. S. H., L.D.S. Lectr.
Lewis, G. J., L.D.S. Demr.
Softley, J. W., B.D.S. Demr.
Ball, G. S., L.D.S. Asst. Demr.

Clin. D. Surgery

7 Lectrs.; 1 Demr.

Orthodontia

Mountford, E. H., L.D.S. Lectr. Watkin, H. G., L.D.S. Demr.

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Joint Secs. to the Jt. Committee
on Tutorial Classes:

E. Hickinbotham, B.A. Ox.

F. Garstang.

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LIVERPOOL OBSERVATORY AND TIDAL INSTITUTE. Observatory est. 1845, Tidal Institute, 1919. Administered by a Joint Committee representing the Univ. Council and the Mersey Docks and Harbour Board. Director, Prof. J. Proudman, M.A., D.Sc., F.R.S. Assoc. Dir., A. T. Doodson, D.Sc. See also App. XXIV. A. IV.

St. Aidan's College, Birkenhead. Principal, Rev. F. B. Heiser, M.A. Ox. Certain courses (not given in the Univ.) are recognized as Univ. courses in part for the ordinary degree of B.A.

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EDGE HILL TRAINING COLLEGE. Principal, Miss E. M. Smith, M.A. Recognized Teachers in *Maths.*, Smith, Miss E. M., M.A.; *English Lit.*, Deakin, Miss M. H., M.A.

MOUNT PLEASANT TRAINING COLLEGE. Principal, Miss C. Holcroft, B.A.

Recognized Teachers in Latin, Sampson, Miss M., M.A.; English Lit.,

TRAINING COLLEGE, Chester. Recognized Teachers: Thomas, R. A., O.B.E., M.A., Principal (in *Maths.*); Hooper, F. W., B.Sc., A.I.C. (in *Chem. and Physics*); Lewis, W. E., B.A. (in *Maths. and Physics*).

THE HARRIS INSTITUTE, Preston. First year of Degree Course (Engineering).

School of Tropical Medicine, Pembroke Place, Liverpool. Ward for Tropical Diseases at Royal Infirmary, Liverpool. Departs. with research labs. at Sierra Leone. For training in the conduct of original research and organization of prophylactic measures. Has sent numerous expeditions to tropical countries. Publishes Memoirs and Annals. For staff, v. supra—Trop. Med., Trop. San., Parasit., Entom., Hygiene. D.T.M. course, 3 mos. D.T.H. course, 3 mos. after taking D.T.M.

Pathological Laboratory, County Mental Hospital, Rainhill.

FACULTY OF MEDICINE: 20 general and special hospitals are affiliated for the purpose of clinical or practical work required for degrees and diplomas in the Faculty of Medicine.

### GENERAL INFORMATION

University College, Liverpool, founded by Royal Charter 1881, was admitted into the Victoria University, Manchester, in 1884. In 1903 the University of Liverpool was established by Royal Charter and the College was absorbed in it.

Library, Museums, etc. The library of the Univ. contains about 120,000 vols., and includes among special collections great series, such as Migne, Pertz, Muratori, and Acta Sanctorum. Among rarer possessions are the Rylands collection of early works on Geography and Astronomy, a collection of works by and about William Blake, sets of the Roxburghe, Bannatyne, and Maitland Clubs, a unique number of Aldines, and over 150 incunabula, among them the final sheets of the Constitutiones of Clement V. printed at Mainz in 1460. Special bibliographies have been issued. In addition there are twenty-three Class Libraries in the Faculty of Arts and External Departmental Libraries for the Medical and Science Departments.

The following are the principal MUSEUMS AND LABORATORIES: Anat., Archaeol. (including a unique Hittite collection), Archit., Bact., Biochem., Bot., Chem., Physical and Electro-Chem., Electricity (Applied), Embryol. and Genetics, Engin. (including facilities for aerial motor and propeller testing and other wind experiments), Geol., Hygiene, Laryngology, Materia Medica, Expl. Med., Trop. Med. (including museum, animal houses, and specially warmed glass insectarium, and research labs. at Liverpool, and Sierra Leone), Obst. and Gynæc., Oceanog., Ophth., Path., Physics, Physiol. and Histol., Surg. Path., Tidal Research, Toxicology, Vet. Anat. and Path., Zool. The Port Erin (Isle of Man) Marine Biol. Lab. has been transferred to the Univ. by an Act of Tynwald. See also App. XXIV. A. III. Hospls. available for Clinics, 4 general and 5 special, containing 1445 beds, which together constitute the clinical school. The trade of the port ensures frequent cases of infection. Special wards for Trop. Diseases. Expeditions to Tropical countries organized for investigation or advice. Suitably qualified persons may enter the Labs. for research at prescribed fees.

FACULTIES. (1) Arts (with Schools of Archit., Archæol., Social Sciences and Administration (including Economics, Commerce, Geography, Social Science

and Publ. Administn.), Local History and Records, Russian Studies; Departments of Civic Design and Educn.); (2) Science; (3) Medicine (with Schools of Dent. Surg., Hygiene, Trop. Med., Vet. Sc.); (4) Law; (5) Engineering. Deans: (1) Prof. A. Bruce Boswell (Russian), (2) S. T. Burfield (Zool.), (3) Prof. W. J. Dilling (Pharmacology), (4) Prof. Batt (Commercial Law), and (5) Prof. Abell (Naval Architect.). Director of Dental Educn., Prof. Gilmour; of Veterinary Studies, Prof. J. Share-Jones.

MATRICULATION. See Appendices XX. and XXI.

DEGREE COURSES: 3 yrs., B.A., B.Com., B.Sc., LL.B.; 3 or 4 yrs., B.Eng. (plus 2 yrs.' appr'ship); 5 yrs., B.Arch., B.V.Sc.; 6 yrs., M.B., Ch.B.; not less than  $5\frac{1}{2}$  yrs., B.D.S.

The B.Com. courses include (1) General Business; (2) Banking, Insurance, Accounting; (3) Transport, Railways, Shipping; (4) Consular Service.

The LL.B. courses prepare for the Bar and solicitors' examns, as well as for the Degree. The B.V.Sc. may be taken concurrently with the M.R.C.V.S.

HIGHER DEGREES: Ph.D., v. p. 18. (1) Graduates of Liverpool in Faculty concerned. Obtainable after Bachelorship: 1 yr. (after Hons. B.Sc., ord. B.Sc., after qual. examn.), M.Sc.; 15 mos., M.Ch. Orth.; 2 yrs., M.A., M.Com. 2 yrs. by thesis, 5 yrs. by examn., M.D.; 2 yrs., Ch.M., M.H. (Hygiene), M.D.S., M.V.Sc., LL.M., M.Eng. After Mastership: 5 yrs., D.Litt.; 3 yrs., D.V.Sc; 5 yrs., LL.D. After Mastership or Ph.D.: 5 yrs. after M.Sc., 4 yrs. after Ph.D. (Science), D.Sc. (5 yrs. after M.Eng. or Ph.D. Engin.), D.Eng.; 10 yrs., after B.Arch., on distinguished archit. work, M.Arch. (2) Graduates of approved Univs. After Bachelorship and 2 yrs.' higher study or research in Liv. Univ.: M.A. (1 yr. elsewhere), M.Com. (1 yr. elsewhere), M.Sc. (1 yr. elsewhere), M.H., M.V.Sc. (1 yr. elsewhere), LL.M. (1 yr. elsewhere), M.Eng. The M.A. is also open under certain conditions to B.Arch. and grads. in Liv. Univ. of a Faculty other than Arts, and the M.Com. to graduates of Liverpool other than B.Com. and M.D.S., 2 yrs. standing and 1 yr. study (thesis or examn.). (3) Non-Graduates. After 3 yrs.' higher study or research in Liv. Univ.: M.A. (1 yr. elsewhere), M.Sc. (1 yr. elsewhere), LL.M. (1 yr. elsewhere), M.Eng.

The M.Ch.Orth. is open to grads., other than Med., of this or approved Univs. who are F.R.C.S. (Eng., Ed., or I.) or Fellows of the American Coll. of Surg.

DIPLOMAS. Archæol., I yr. course; Archit., 5 yrs.; Civic Design, I yr.; Commerce, 3 yrs.; Educn. (for grads.), I yr.; Geography, 2 yrs.; Public Administration, 3 yrs.; L.D.S., not less than 4 yrs.; D.P.H., I yr.; D.T.M., 3 mos.; D.T.H., 3 mos. (after taking D.T.M.); D.M.R.E., 2 terms; D.V.H., 6 mos.; Engin., 2 yrs. after final examn. for Certif.

CERTIFICATES. Archæology, 2 yrs.' course; separate Arts subjects, 2 yrs.; Architectural Design, 1 yr.; Civic Design, 2 terms of 2 sessions; Social Science, 1 or 2 yrs. (qualification for entry lower than for Diploma course); Educn., 1 yr.; Engin., 3 yrs. (2 yrs. for cands. who have taken appd. techn. course); Univ. extension courses, 3 yrs.

FEES. For Matricn., £2. Guild of Undergrads., £2: 10S. p.a. DEGREE COURSES: B.A., or B.Com. (3 yrs.), £90; M.A. or M.Com. (sessional), £5; B.Arch. (5 yrs.), £150; B.Sc. (3 yrs.), £105 to £160; M.Sc. (sessional), Maths., £5; other subjs., £10; M.B., Ch.B. (6 yrs.), £26; M.D. (sessional), £10; Ch.M. (2 yrs.), £20; M.H. (2 yrs.), £80; M.Ch.Orth. (15 mos.), £41; B.D.S. (5 yrs.' complete course in the University), £250; M.D.S. (2 yrs.), £220 f £27; B.V.Sc. (5 yrs.), £175; M.V.Sc., 1st yr., £30, 2nd yr., £20; LL.B. (3 yrs.), £48: 12s.; LL.M. (sessional), £5; B.Eng. (3 or 4 yrs.), £144-£192; M.Eng. (Research), £20; Ph.D. (2 or 3 yrs.), £27 or £40: 10S. Apparatus fee per session

£10. DIPLOMA COURSES: Archit. (5 yrs.), £150; Civ. Des. day, £35; Educ. (1 yr.), £20; Com. (3 yrs.), £90; Archæol. (1 yr.), £10; Geography (2 yrs.), 1st yr., £20, 2nd yr., £10; Public Admin. (3 yrs.), £30; D.P.H. (1 yr.), £45; D.T.M. (3 mos.), £21; D.T.H. (3 mos.), £12:165.; D.M.R.E. (2 terms), £24:5s.; L.D.S. Liv. (complete course in the University) (4 yrs.), £198; M.R.C.V.S. (4 yrs.), £120; D.V.H., (6 mos.), £21; Eng., £96. CERTIFICATE COURSES: Archit. Des. (1 yr.), £35; Civ. Des. (2 terms of two sessions), £10; Soc. Science (2 yrs.), £28; Archæol. (2 yrs.), £30; Educ. (1 yr.), £20; Engin. (3 yrs.), £96-£144.

EXAMN. FEES. M.B. and Ch.B., B.V.Sc., B.D.S., £15; B.Arch., £5; other Bachelor degrees, £4; Master's degree (examn. or on application), M.H., 10 gs.; Ch.M., M.Ch.Orth., M.V.Sc., M.D.S., £5; others, £3; Doctor's (examn. or on application), Ph.D., £8, others, £10. Diploma examns., L.D.S., £15; Comm., £4; Archæol., Public Admin., £3; Educn., Geog., Eng., £3; others, £5 or 5 gs. Certifs. Examns., Eng., £6; others, £2. Degree Admission Fees, £6 for first degree, subsequent degrees, £5; Dipl. Eng., £3; Certif. Eng., £2; others, £1.

Post-graduate Scholarships, etc. A large number of valuable Fellowships and Scholarships are offered annually in all faculties. For Garrett International and Johnston Fellowships for Research and Ridgeway Research Scholarship, v. App. XXIII. 16, 18.

RESIDENCE, ETC. Two hostels for 103 men (fees, £70); one for about 90 women (fees from £65 to £72). Students' Union Club House cost £20,000.

APPOINTMENTS. Secretary, S. Dumbell, M.A.

Association of Graduates. Besides "Convocation"—there is a Liverpool University Society, with mainly social functions.

A UNIVERSITY EXTENSION BOARD and a University Joint Committee on Tutorial Classes are responsible for extra-mural work. There are travelling libraries for local centres.

Publications. Calendar (Oct.), 2s. 6d.; Diary (Oct.), free to members of the Univ.; Prospectuses of Faculties and Schools (July), free; Students' Handbook (Oct.), free; Students' Magazine, The Sphinz, 6d. (4 numbers per session); Report on Research and other Original Work (Nov.), free; Inaugural Lectures. Issued in 1920, inter alia, School of Tropical Medicine Historical Record, 1898–1920, 10s. 6d.; A Brief Record of Work and Progress.

# THE YEAR 1930-31

BENEFACTIONS. The Rt. Hon. Lord Leverhulme, £5000 for new buildings for the L'pool School of Architecture (including Dept. Civic Design); Mrs. Alsop, £3000 for further endowment of the James W. Alsop Lectureship in Music; the late Mr. J. A. Smith, £50 p.a. for 7 yrs.; Pro-Chancellor C. Sydney Jones, the house No. 69 Bedford Street; Emer. Prof. W. Ramsden, £340 for the Dept. of Biochemistry; Rt. Hon. the Earl of Derby, £100 for Vet. Building Fund; the friends of the late Prof. Alexander Mair, £97: 10s. for a Prize in Philosophy.

New Posts. Lectureships in Public Administration, Esperanto, Veterinary Pathology, two Asst. Lectureships in Biochemistry, Junior Lectureship in Modern History.

OTHER DEVELOPMENTS. Reconstruction of Bishop's Palace in Abercromby Square for Depts. of Econs., Commerce and Social Sci., including Public

Adminisn. Reconstruction and re-equipment of Johnston Biochem. Labs. Layout of Quadrangle.

CHANGES IN REGULATIONS. Diploma in Social Sci. discontinued. Mark of Distinction instituted for D.P.H. and L.D.S. Degree of B.A.: As from 1932 the former distinction between the Ordinary Degree and the Degree with Hons. to be abolished. The degree of B.A. is to be conferred either as a degree in General Studies or as a degree in Special Studies in one of the Schools of the Faculty. Hons. may be awarded in either General or Special Studies.

RESIGNATIONS AND DEATHS. Prof. W. Blair Bell (Mid. and Gynæcol.); Prof. E. W. Hope (Hygiene),; Prof. E. C. Titchmarsh (Pure Maths.), on appt. as Savilian Prof. Geom., Oxford; Mr. R. R. Betts (Med. Hist.), on appt. to Lectureship, Queen's Univ., Belfast; Rev. C. W. Budden (Ecc. Archit.); Miss D. Chapman (Lat. and Warden, Univ. Hall), on appt. as Principal, Westfield Coll., London; Mr. K. D. Downham (Vet. Adviser), on appt. to post at Harper Adams Agric. Coll., Newport; Mr. E. M. K. Ellerton (Archit.); Mr. A. Evans (Clin. Surg.); Mr. R. Fairhurst (Dent. Mech.); Mr. A. Goodwin (Mod. Hist.), on appt. to Lectureship at Jesus Coll., Oxford; Mr. N. Irving (Indust. Traffic Management); Dr. W. Johnson (App. Anat.); Dr. P. Malpas (Anat.); Mr. J. H. Morris (Econ. Hist.), on appt. to Lectureship, Univ. Coll., Aberystwyth; Dr. A. A. Mussen (Pract. Sanit.); Mr. G. L. Roberts (Dent. Surg.); Mr. H. S. Silcock (Archit.); Dr. A. F. Titley (Educ.), on appt. to Senr. Lect., King's Coll., London; Mr. O. C. Waygood (Appl. Elect.); Miss L. Winchester (Geog.); Mr. J. S. Wynne (Op. D. Surg.); Mr. S. Pryce Parry (Bursar and Asst. Registrar), retired. DEATHS: Mr. J. A. Smith (Vice-President of the Council), Emer. Prof. T. R. Glynn (Med.), Emer. Prof. J. M. Mackay (Hist.), His Honour Judge A. P. Thomas (Prof. Internat. Law), Mr. Prosper H. Marsden (Mat. Med. and Pharmacy), Dr. F. P. Barnard (Med. Archaeol.).

EXTRA-MURAL WORK. Extension Lectures were given to the general public, to Teachers, Technical Colleges, and Schools, in the area from Barrow in the north to Crewe in the south, and from Wigan to the coast. In all 173 lectures were delivered at 47 centres. 58 Tutorial Classes arranged in conjunction with W.E.A. Students on Roll, 969. Series of popular afternoon and evening public lectures at the Univ.

Visits of Teachers. (a) Visitors to the University. Miss Gardner from Univ. of Minnesota exchanged with Miss Black of the Sch. of Social Sci.; Mons. Raymond Guyot, lectured on "Clémenceau"; Dr. Murk Jansen, on "The Scientific and Social Aspects of Orthopædics"; Colonel R. E. B. Crompton, on "The Electricity Supply Industry and the Effects of Legislation on its Development"; Prof. A. E. Taylor, on "The Philosophy of Religion"; Rev. E. I. Fripp, on "Shakespeare's Stratford"; Mr. Norman Bentwich, on "Ten Years of Mandates"; Mr. C. K. Munro, on "Watching the Play"; Prof. E. Tonnelat, on "Culture allemande et culture française: contrastes et rapprochements"; Prof. S. Brodetsky, on "Ancient Jewish Astronomy"; Prof. T. F. Dunhill, on "Chamber Music"; and Lieut.-Col. Sir David Prain, on "Science Discipline."

(b) Visits to Other Universities. Miss Black visited the Univ. of Minnesota in exchange with Miss Gardner.

Honorary Degrees. M.A.—Wilhelmina Aspell (Sister Imelda), Robert Hutton, Thomas Samuel. M.Arch.—Sidney Colwyn Foulkes. M.Eng.—George Thompson,

STUDENTS. Full-time: total, 1747, including 185 graduates; part-time: total, 473, including 286 graduates.

Degrees conferred. Ph.D. (Arts), I; M.A., 3I; B.A. Hons., 59; B.A. Ord., 51; B.Arch. Hons., 10; B.Arch. Ord., 4; B.Com. Hons., I; B.Com. Ord., 3; D.Sc., I; Ph.D. (Sci.), I4; M.Sc., I3; B.Sc. Hons., 38; B.Sc. Ord., 36; M.D., I2; M.Ch.Orth., 6; M.B., Ch.B. Hons., 2; M.B., Ch.B. Ord., 28; B.D.S. Hons., I; B.D.S. Ord., 2; M.V.Sc., I; LL.M., 8; LL.B. Hons., 7; LL.B. Ord., 10; D.Eng., I; Ph.D. (Engin.), 2; M.Eng., 17; B.Eng. Hons. II; B.Eng. Ord., 13. Total, 383.

# UNIVERSITY OF LONDON

VISITOR-H.M. THE KING IN COUNCIL.

Chancellor—The Rt. Hon. the Earl of Athlone, K.G., G.C.B., G.C.M.G., G.C.V.O., D.S.O.

VICE-CHANCELLOR—Rev. J. SCOTT LIDGETT, D.D., M.A.

Deputy Vice-Chancellor—Rev. Canon J. A. Douglas, Ph.D., B.A., B.D.

CHAIRMAN OF CONVOCATION—S. L. LONEY, M.A.

CHAIRMAN OF THE COURT—The Rt. Hon. LORD MACMILLAN, M.A., LL.D. Edin.

PRINCIPAL—EDWIN DELLER, LL.D.

CLERK OF THE COURT-H. CLAUGHTON, C.B.E., B.A.

SECRETARY TO THE SENATE-MAURICE WEBB, C.I.E., M.A. Ox.

ACADEMIC REGISTRAR—S. J. WORSLEY, D.S.O, M.C., B.A.

EXTERNAL REGISTRAR-G. F. GOODCHILD, M.A., B.Sc.

University Extension Registrar-John Lea, M.A.

SECRETARY OF THE MATRICULATION AND SCHOOL EXAMINATIONS COUNCIL—S. H. SHURROCK, M.A.

Superintendent of Examinations — R. B. P. Wallace, B.A., LL.B. Camb.

GOLDSMITHS' LIBRARIAN-R. A. RYE.

DEANS OF FACULTIES. See under "General Information"—Faculties.

Representative in Parliament—Sir E. G. Graham-Little, B.A., M.D., F.R.C.P.

## Incorporated Institutions and University Departments

UNIVERSITY COLLEGE, v. p. 125.

KING'S COLLEGE, v. p. 134. Goldsmiths' College, v. p. 190.

Brown Animal Sanatory Institu.,

v. p. 113.
Francis Galton Laboratory for National Eugenics, v. p. 131.

School of Architecture, v. p. 131.

Institute of Historical Research, v. p. 113.

Commerce Degree Bureau and Appointments Board, v. p. 119.

University Observatory, v. p. 114.

#### Associated Institutions

36 Schools of the University.

22 OTHER INSTITUTIONS HAVING RECOGNIZED TEACHERS.

# PROFESSORS, READERS, LECTURERS, ETC.

Note.—University teaching is organized under 3 categories: (1) conducted by the Univ. itself; (2) conducted by the several "Schools

of the Univ."; (3) conducted at the other Institutions at which there are "Recognized Teachers of the Univ." For explanation of these terms, see p. 110. The names of teachers of the several subjects will be found in the subsections indicated by letters as follows:

University College, p. 125 (U). King's College, p. 134 (K).

## Schools of the University

IMPERIAL COLLEGE, p. 140 (Im.). BEDFORD COLL. FOR WOMEN, p. 161. (BW). EAST LONDON COLLEGE, p. 145 (EL). ROYAL HOLLOWAY COLL., p. 164 BIRKBECK COLLEGE, p. 147 (Bk.). (Ho.). LONDON SCH. OF ECONOMICS, p. 150 WESTFIELD COLL., p. 165 (Wf.). (E). S.E. AGRIC. COLL., WYE, p. 155 (Ag.). King's Coll. of Household AND SOCIAL SCIENCE, p. 166 LONDON DAY TRAINING COLL., D. 157 (KH). 4 THEOLOGICAL SCHOOLS, p. 167 (Th.). SCHOOL OF ORIENTAL STUDIES, p. 158 (0).21 MEDICAL Schools, p. 169 (Med.).

THE FACULTY OF LAWS, p. 186 (Law).

OTHER INSTITUTIONS HAVING RECOGNIZED TEACHERS, pp. 187 ff.
(RI).

#### SUBJECTS TAUGHT

Accountancy and Business Methods (E). Administration, v. Public Aeronautics (Im., EL). African Languages (O). Agriculture (Ag., RI). Albanian (0).Anatomy (U, K, Med.). Anatomy, Morbid (Med.). Anthropology, v. also Social A. (U, K). Arabic (O). Aramaic (Th.). Archæology (U, K). Architecture (U). Art (Fine Art) (U, K, Ho.). Astronomy (U, Im.). Astrophysics (Im.). Aviation (Im., EL). Bacteriology (KH, Med.). Banking and Currency (E). Bibliography (K). Bio-Chemistry (U, Im., Med.). Biology (Im., KH, Med.). (U, K, Im., EL, Bk., Ag., Botanv BW, Ho., Wf., Med., RI). Celtic (U). Chemical Engineering (U. Im.). Chemical Technology (Im.).

Chemistry (U, K, Im., EL, Bk., Ag., KH, BW, Ho., Med., RI). Chemistry, Organic (U, K, Im., BW, RI). Chemistry, Pathological (U. Med.). Chemistry, Physical (K, Im., BW). Chemistry, Physiological (Med.). Chinese Classics (U, K, EL, Bk., BW, Ho., Wf., Th., RI). Commerce and Industry (E, RI). Coptic (U). Czecho-Slovak (K). Danish (U). Dentistry (Med.). Dutch (U, BW). Economics (U, E, Bk., KH). Economic Geography (U, E). Economic History (K, E). Education (K, Tr., RI). Egyptology (U). Embryology (U). Engineering— Aviation (Im., EL). Chemical Engineering (U, Im.). Civil Engineering (U, K, Im., EL, RI).

Engineering—Contd.	Italian (U, K).
Electrical Engineering	Journalism $(U, K)$ .
(U, K, Im., EL, RI).	Languages, v. African, Arabic, etc.
Engineering Design (U, Im.).	Law (Law, Bk., O, RI).
Heating and Ventilating (U).	Librarianship (U).
Mechanical Engineering	Logic, v. Philos.
(U, K, Im., EL, RI).	Malayalam (O).
Mining and Power Engineering (Im.)	Mathematics (U, K, Im., EL, Bk.,
Municipal Engineering (U).	BW, Ho., Wf., RI).
Optical Engineering (Im.).	Medicine and Surgery (Med.).
Railway Engineering (U).	Metallurgy (Im., RI).
Surveying (U, RI).	Meteorology (Im.).
Waterways, Harbours, and Docks	Military Science (Ù, K).
(U).	Mineralogy (U, Im.).
English (U, K, EL, Bk., E, BW,	Mining (Im.).
Ho., Wf.).	Music (Ho., RI).
Entomology (Im., Ag., Med.).	Mycology (Ag.).
Ethnology (E).	Norwegian (U).
Eugenics (U).	Oil Technology (Im.).
Finance, Public (E).	Optics, Technical (Im.).
Forestry (Im.).	Oriental Langs., v. also Semitic,
French (U, K, EL, Bk., E, BW,	Tibetan (O).
Ho., Wf.).	Palæography and Econ. Hist. (K).
Fruit Culture (Ag.).	Palæontology (Im.).
Fuel Technology (Im.).	Pedagogy (K, Tr., RI).
Geography (U, K, EL, E, Bk., BW).	Pharmacology (U, K, Med.).
Geology (U, K, Im., EL, Bk., Ag.,	Philology, Comparative (U, K).
BW, RI).	Philosophy, Psychology, and Logic
German (U, K, EL, Bk., E, BW,	(U, K, Bk., E, BW, Ho., Th.).
Ho.).	Philosophy of Religion $(K)$ .
Greek, Modern, and Byzantine History	Phonetics (U and O).
(K).	Physics (U, K, Im., EL, Bk., KH,
Hebrew (U, K, Th., RI).	BW, Ho., Med., RI).
Historical Research and Sources of	Physics, Astronomical (U, Im.).
English H. (v. also p. 113) (K).	Physiology (U, K, KH, BW,
History (U, K, EL, Bk., E, O,	Med., RI).
BW, Ho., Wf., RI).	Polish (K).
History and Culture of British	Political Economy, v. Economics
Dominions in Asia, with Special	Political Science (E).
Reference to India (O).	Political Theory (E).
History and Records of London (U).	Portuguese (K).
History, Imperial (K).	Poultry (Ag.).
History and Instns., Modern French	Protozoology (Med.).
(U, E).	Psychology, v. Philosophy
History, Central European (K).	Public Administration (E).
History of Medicine (U).	Public Health (U, Med.).
History and Method of Science (U).	Refractory Materials and Silicates
History, Near East (O).	(Im.).
Horticulture (Ag.). Household Science (KH).	Romance Philology (K). Roumanian (K).
Hygiene (U, KH, Med.).	Roumanian (K). Russian (K).
Indian Economics (E).	Russian Institutions and Economics
Industrial Psychology (E).	Russian Institutions and Economics (E).
International History (E).	Scandinavian (U).
International Relations (E).	Secretarial Practice (E).
1 Tour Transcrius Resultoris (E).	Secretarian Practice (E).

Semitic Languages	(U, RI).	Swedish	(U).
Serbian	(K).	Theology	(K, Th.).
Shipping	(E).	Thermodynamic	s (U).
Sinhalese	(O).	Tibetan	(U, O).
Slavonic Languages	(K).	Town-planning,	v. Architecture
Social Anthropology	(E).	Transport	(E).
Social Biology	ÌΕ).	Veterinary Scien	ice (Ag., RI).
Social Science	(E, KH, BW).	Woods and Fibr	es, Technology of
Sociology	(E),		(Im.)
Spanish	(K, ÈL).	Zoology (U,	K, Im., EL, Bk., BW,
Statistics	`(Ú, E).		Med., RI).
Surveying	(Ù, RI).		•

## GENERAL INFORMATION

[Note. The University authorities desire that it should be clearly understood that they can accept no responsibility for any information concerning examns. or procedure except such as is contained in their own official Regns. These can always be obtained on application at the Univ. offices.]

Central offices—South Kensington, S.W.7. Telegraphic address—University, Southkens, London.

The Univ. was constituted by Royal Charter in 1836 as a body empowered to grant degrees to students of approved institutions after examination, and, until 1900, its work was confined to the examination of students. The system whereby entrance to its examns, was restricted to students of certain affiliated Colleges was abolished, except for examns, in Medicine, in 1858. In 1878 its degrees were thrown open to women, London being the first of the Univs. of Great Britain to adopt this policy.

In 1900 the Univ. was reconstituted so as to strengthen the ties between it and the institutions engaged in Higher Education within a radius of 30 miles. The Senate was empowered to admit as Schools of the University institutions situated within the administrative county of London and not carried on for the private gain or profit of the owners which provide education of Univ. standard, and required to obtain reports at prescribed intervals on the efficiency of such schools. A special form of recognition could be given to an institution within the same area founded for research or the cultivation of any special branch of science or learning, and the Lister Institute of Preventive Medicine, the Maudsley Hospital, the Bethlem Royal Hospital, the School of Pharmacy, and the School of Oriental Studies have been admitted in this category.

The Senate has the power also to recognize as Teachers of the Univ. any members of the teaching staff of public educational institutions, whether Schools of the Univ. or not. Matriculated students of Schools of the Univ. or studying under such Recognized Teachers are eligible under certain conditions for registration as Internal Students, and are allowed, after pursuing Approved Courses of Study, to enter for the "Internal" examns. of the Univ. External Students may pursue their studies where and how they please, and are admitted, without any conditions as to attendance at Approved Courses, to examns. for degrees in all subjects except Medicine, Pharmacy, Mining, and Architecture. The examns. for Internal and External students are in some cases separate, in others identical.

Further changes in the constitution of the Univ. have been made by the Statutes under the University of London Act of 1926. These Statutes came

into force in March 1929. The most important change is the creation of a new body known as the Court, which is responsible for the finances of the Univ.

The two original colleges of the Univ. have been incorporated in it, the University Coll. in 1905 and King's Coll. in 1908, the Senate taking over the responsibility for their administration.

LIBRARIES. The libraries belonging to the Univ. of London contain in the aggregate c. 625,000 vols. and pamphlets distributed in three chief centres, as follows: (r) The Univ. Library in the Central Building at S. Kensington (c. 253,500 vols. and pamphlets) which provides a free lending library for students and well-equipped research libraries for post-graduate students, incl. the Goldsmiths' Library of Econ. Literature, foremost, on the historical side, among the econ. libraries of the country (c. 60,000 vols. and pamphlets). (2) Univ. Coll., Gower Street (c. 300,000 vols. and pamphlets), incl. the General Library, a series of separate "seminar" libraries (known as the Arts Libraries), the Science Library, and the Med. Sciences Library. (3) King's Coll., Strand (c. 75,000 vols. and pamphlets), incl. a general library and several special collections. The libraries of the Institute of Historical Research, the Francis Calton Laboratory, and the Commerce Degree Bureau, and a small students' library at Goldsmiths' Coll., New Cross, are also the property of the Univ.

There are also important specialized and general libraries belonging to the Schools and instns. of the Univ., incl. those of the Med. Schools, the London School of Hygiene and Trop. Medicine, the Royal Coll. of Music, the School of Oriental Studies, and the London School of Economics.

Full particulars of the above are included in R. A. Rye: Students' Guide to the Libraries of London (v. infra—Publications).

Museums. Among the many Museums which, in addition to those belonging to the Schools and Institus. of the Univ., are accessible to students in London are the British Museum (Antiq. and Nat. Hist.); Horniman (Anthrop. and Zool.); London; Parkes (Sanitary Science); Practical Geol.; Roy. Archit. Soc's; Roy. Coll. of Surgeons'; Science, S. Kensington (Mech., Nav., and Struct. Engin., Phys., Maths., Chem., Physiog., Geol., and Biol.); Sir John Soane's (Art and Antiquarian); Victoria and Albert, S. Kensington (Archit. and Sculpture, etc.).

LABORATORIES. The most important are mentioned in the subsections relating to the several colleges. The following are not attached to any college:

The Brown Animal Sanatory Institution, 149 Wandsworth Rd., Vauxhall, S.W.8. Superintendent—Prof. F. W. Twort, M.R.C.S., L.R.C.P., F.R.S. Established in 1871 for "investigating, studying, and, without charge beyond immediate expenses, endeavouring to cure maladies, distempers, and injuries, any quadrupeds or birds useful to man may be found subject to." It contains a Hospital, in which the diseases and injuries of animals are treated, and a Laboratory, where the investigation and study of diseases of animals are carried on. Both In- and Out-Patients (some 5 or 6 thousand per annum) are treated. Clin. students may be admitted to the Vet. Depts., and Research students are received in the Lab.

The Institute of Historical Research, Malet St., W.C.I, is the Univ. Laboratory of History, devoted exclusively to post-grad. and research work. It is situated close to the British Museum, and consists of a systematically planned series of seminar libraries, with the books containing or describing the main sources of mediæval and mod. hist. (esp. those whose MS. originals are in the Record Office and other London Archives). It is open not only to every prof., reader, or other teacher of hist. in the Univ. and his research students, but to historians, archivists, and teachers and research students from other Univs.,

approved by the Committee. Hon. Director, A. F. Pollard, M.A., Litt.D., F.B.A.; Secretary and Librarian, C. G. Parsloe, B.A.

THE UNIVERSITY OBSERVATORY was opened in 1929. It is situated in Mill Hill Park, London, N.W.11, on a site granted by the Hendon Urban District Council on a 999 years' lease at a nominal rent. It contains a 24-inch reflecting telescope, the gift of Mr. J. G. Wilson; an 8-inch refracting equatorial telescope, the gift of Mr. H. R. Fry; and a spectrographic laboratory. The Observatory is open to students of all the Colleges of the University in the Faculty of Science. Application for admission should be made to the Director, Prof. L. N. G. Filon, D.Sc., F.R.S.

FACULTIES. I. Theology. 2. Arts. 3. Laws. 4. Music. 5. Medicine. 6. Science. 7. Engineering. 8. Economics and Political Science. Deans: I. Dr. Garvie (Hackney and New Coll.). 2. Prof. Reed (King's Coll.). 3. Prof. de Montmorency (Univ. Coll.). 4. Dr. C. H. Kitson (R. Coll. of Music). 5. Prof. G. E. Gask (St. Bart.'s Hospl.). 6. Prof. F. Horton (R. Holloway Coll.). 7. Prof. C. L. Fortescue (Imp. Coll., C.G.C.). 8. Dr. Eileen E. Power (Lond. Sch. of Economics).

Committees of the Senate. The more important are—The Academic Council, the Council for External Students, the Collegiate Council, the University Extension and Tutorial Classes Council, the Matricn. and School Examinations Council, the Finance and General Purposes, Library, and Scholarships Committees. There are 18 other Committees besides the 46 Boards of Studies.

TERMS for Univ. and Inter-collegiate courses, 1931-32: Oct. 8-Dec. 17, Jan. 12-March 22, April 26-June 28.

DEGREES. B.D., D.D.; B.A., M.A., D.Lit.; LL.B., LL.M., LL.D.; B.Mus., D.Mus.; M.B., B.S., M.D., M.S.; B.D.S.; B.Pharm.; B.Sc., M.Sc., D.Sc.; B.Com., M.Com.; Ph.D. (in Faculties of Theol., Arts, Music, Medicine (non-clinical subjects), Science, Engin., and Econ.).

The B.Sc. and D.Sc. are granted in the Faculties of Science (including Pure Sc., Agric., Hortic., Vet. Sc., and, for External students, Estate Management, and, for Internal students, Household and Social Science—B.Sc. only), Engineering, and Economics; the M.Sc. in Science (including Agric., Hortic., Vet. Sc., and, for Internal students, Household and Social Science, and, for External students, Estate Management), Engineering and Economics.

ADMISSION. The Univ. holds 3 times a year in London and twice a year in certain Provincial centres a Matricn. examn. open to all persons of 16 yrs. of age and upwards. The examn. can also be held by special arrangement in any of the British Dominions or Colonies, and certain Protectorates and mandated Territories, Candidates are required to pass on one and the same occasion in 5 subjects: English, Maths., Latin or Greek or a scientific subject, 2 other subjects of which one must be a language, if neither Latin nor Greek is chosen for 3rd subject; but any candidate may offer an alternative lower paper in Mathematics or French or Latin and, in compensation, a sixth subject; candidates will be required to pass on the one and the same occasion in each of the subjects selected. The General School examn. (v. p. 122), if passed in a combination required for Matricn., is equivalent to the Matricn. examn., and several other examns. are also accepted on conditions as exempting from it, namely, those numbered 2, 6, 7, 8(a), 8(b), 9, 10, 11, 12, 14(a), 15, in Appendix XX., and including the Schoolleaving examns. of the Univs. of Adelaide, Melb., W. Aust., Cape of Good Hope Secondary School Senior Cert., and Transvaal Secondary School Examn.

STUDENTS FROM OTHER UNIVERSITIES. The graduates of any of the Univs.

of the United Kingdom and of some overseas Univs.\* can also claim exemption. Other students of 19 yrs. of age and upwards who present certificates of Matricn. in Colonial Univs. or Indian or foreign certifs, from educational authorities indicating an education equivalent in their own country to that required in England for the Matricn. examn., may apply for admission to the Special Univ. Entrance Examn. in lieu of taking the Matricn. examn. It has been the practice to hold this examn, four times a year. Students who do not propose to proceed to a degree are not required to pass any Univ. examn, but must submit evidence that they are sufficiently advanced in their studies.

Persons over 23 years of age may apply for admission to the Special Univ. Entrance Examn. See the preceding paragraph.

EXTERNAL students preparing for the Bachelorship undergo Intermediate and Final examns. at intervals prescribed in the Regns., and approximating (except in Med., Dental Surgery, and Vet. Sc.) to 3 yrs. in all. All External Students (except, for the present, those overseas) are required to register for each examn., and all must previously have matriculated. Copies of all Regns. may be obtained gratis and post free from the External Registrar.

EXAMINATIONS IN THE OVERSEAS DOMINIONS. Certain of the examns. of the Univ. for External students are held not only in London and at Provincial centres within Great Britain, but also in certain of the overseas Dominions of the Empire. In India only the examns in the Faculty of Theol. are held for civilians; but other examns may be held for military personnel. The Matricn. examn. and the examns in Theol., in Arts, in Laws, and in Economics have been held at 110 overseas centres. The Univ. Examns. in Science have also been held under special arrangements at 12 overseas centres, including Ceylon, the Government of which colony now awards annually scholarships of a total value of over £4000 per annum upon the results of the Univ. Final examns. in Arts and in Science.

An Internal student before being allowed to enter as such for any examn. must, unless specially exempted, have attended Instruction courses in all the subjects thereof. For a first degree in any Faculty he must have completed an Approved Course of Study extending over at least 3 yrs. which must, ordinarily, have been continuously pursued, but not necessarily all at one institution. A minimum number of hours of attendance is as a rule prescribed for each course, and a reduction is allowed in the case of an evening student who is certified by an employer to be engaged in his service for not less than 25 hours a week. The Interm. course generally extends over 1 yr. As a general rule, Hons. may be taken at the Final examns. A course of study extending over not more than 1 yr. taken in another Univ. approved for the purpose subsequently to a student's passing the Interm. may be accepted subject to regns. in lieu of a course taken in this Univ.

Any person who has passed the Interm. examn. as an *External* student may be allowed to take the Final examn. for the first degree after having attended for 2 yrs. as an Internal student an approved course of study for it, but the degree is not conferred till after a further yr.'s course of approved study.

<sup>\*</sup> In Canada—Acadia, Alb., Br. Columbia, Dal., King's, Laval, McG., McM. (B.A. only), Manit., Queen's, Saskatchewan, Tor., Vict., W. Ontario; Australasia—Adel., Melb., Qld., Syd., Tas., W.A. (Arts, Sc., Agr., Eng.), N.Z.; S. Africa—Cape, Cape Town, S. Afr., Stell., Witw.; India—Agra, Aligarh, All., Andhra, Benares, Bom. (L.M. and S. also recognized), Calc., Dacca, Delhi, Lucknow, Mad., Mys., Nagpur, Panj., Patna, Rang.; Hong-Kong; certain Univs. in countries outside the British Empire.

ARTS. In the Interm. examn. 2 langs. must be taken, including either Latin with Rom. Hist., or Greek with Greek Hist. Natives of Asia or Africa may apply for permission to substitute for Latin or Greek— Classical Arabic, Classical Persian, Sanskrit, Pali, Classical Hebrew, or Classical Chinese. For B.A. (General) Degree 3 subjects, including a language other than the candidate's own language, must be taken. The Honours subjects for the Final examn. are Archæol., Chinese, Classics, Hebrew and Aramaic (including Syriac), Hist., Geog., Maths., Philos., Psych., Engl., French, Ger., Ital., Portuguese, Span., Slavonic Studies, Indo-Aryan, Arabic, Persian, Japanese, also Celtic for External students, and, for Internal students, Greek, Latin, Dutch, Scand. Langs., Anthropol., Sociology.

The B.A. course in Archit. extends over 5 yrs., but graduates of approved Univs. may be exempted from such part of the earlier yrs.' courses of study

and examns. as the Senate may determine.

The M.A. is conferred in Archæol., Class., Hist., Maths., Mediæval and Mod. Langs., Oriental Langs., Philos., Educn., Geog., and, for Internal students only, in Comp. Philol., Psychol., Slavonic Studies, and Sociology. Internal students are required (except in Maths.) to submit a thesis. In some cases candidates must have taken Hons. at the B.A. examn. External students may take the M.A. examn. 2 yrs. after graduation in Arts. Candidates may only take 1 branch or section at a time. In most there is a viva-voce examn.

The D.Lit. is open to M.A.'s and Ph.D.'s only and is conferred for original

work.

Diplomas. Teacher's, r yr. course for graduates and others similarly qualified (also for External students); Fine Art (3 yrs.); Dramatic Art (2 yrs.); Slavonic studies (2 yrs.); Hist. (4 yrs. part-time or r yr. full-time); Hist. of Art (4 yrs. part-time or 2 yrs. more intensive); Public Health (Academic and External); Journalism (2 yrs.); Literature (4 yrs. part-time or r yr. full-time); the Literary, Historical, and Comparative Study of the Bible; Town Planning and Civic Archit. or Civic Engin. (2 evenings a week for 2 terms or r day a week for 3 terms); Academic Dip. in Geog. (120 hours); External Dip. in Geog.; Sociol., etc. (v. infra, Econ.); Librarianship (2 yrs.) for day students, 3-5 yrs. for evening students); Academic Dips. in Compar. Philol., Military Studies, Psychol., Anthropol., and Archæol. (2 yrs.).

SCIENCE. For the Interm. examn. Pure or Applied Maths. or Physics must be taken with 3 other subjects. For Final (General) examn. any 3 of the following may be selected: Pure Maths., App. Maths., Astron., Physics, Chem., Geol., Bot., Zool., Physiol., Psych., Anthrop., Milit. Studies, Goog., Human Anat. and Morph., and Logic and Method (Ext. students), Statistics (Int. students). For B.Sc. (Special) examn. a student selects r principal and (except in case of Human Anat. and Morphol. or Maths.) r subsidiary subject. Honours may be awarded at both B.Sc. (General) and B.Sc. (Special) examn. For the M.Sc. for Internal students a thesis is required except in Maths.

For the Degree in Agric. the Interm. examn. includes Chem., Bot., Zool., and Physics; the Final—Agric., Bio-Chem., Agric. Bot., and Agric. Engin. In Horticulture the subjects for the Interm. are Chem., Bot., Zool., Physics, Geol., and Surveying; for the Final, Practice of Hortic., Book-keeping, Principles of Hortic., and Entom. For the Degree in Vet. Sc. there are 4 examns. to be taken in their proper order: Prelim. (Inorganic Chem. and Physics), Interm. Pt. I. (Organic Chem., General Biol., and Vet. Anat.), Pt. II. (Vet. Physiol.), and Final (Vet. Pathol. and Vet. Hyg.). There is no Doctorate in Agric. or in Vet. Sc., Bachelors of Science (Agric. or Vet. Sc.) being held to be eligible for the ordinary D.Sc. For the Degree in Household and Social Science there are 3 examns: 1st Interm. (Phys., Inorg. Chem.,

Biol., and Social and Econ. Hist.); 2nd (Chem.—Org. and Phys., Gen. and Econ. Biol., Principles of Econ.); and Final (App. Chem., Physiol. and Bio-Chem., Hygiene and Bacteriol., and Household Work). For the Degree in Estate Management there are 2 examns., Interm. and Final. Interm.: Pt. I.—Surveying, Econ., and Agric. or Town Planning; Pt. II.—Accounting and Land Law; (Pts. I. and II. may be taken separately). Final: Pt. I.—Land and Buildings Valuation, Taxation and Tithe, Land Law; Pt. II.—Building Constrn., and either A (Agric., Forestry, Agric. Law) or B (Town Planning, Urban Pub. Sanitation, Munic. and Local Govt. Law). Pts. I. and II. may be taken separately.

Diplomas. Academic Dip. in Bacteriology (1 yr.); Academic Dip. in Biology (1 yr.).

Theology. The Interm. course is in Bibl. Langs., Class. Langs., Ancient Hist., and Psych. and Ethics; the Final in Old Test., New Test., Bibl. and Hist. Theol., Church Hist., Philos. Introdn. to Theol., and a selected subject. The Honours examn. is distinct from the Pass, and may be taken r yr. after graduation in Div.; the subjects are Hebrew and Aramaic, including Syriac, Greek N.T. and Apocrypha, Church Hist., Bibl. and Hist. Theol., Study of Religion. Candidates for the D.D. degree must have taken Honours in Theol. in this Univ.

Diplomas. Academic and External Diplomas in Theol.

Law. The subjects of the Interm. course are Rom. Law, Engl. Const. Law and its Hist., Engl. Legal System, and Crim. Law and Crim. Procedure, or Indian Penal Code and Crim. Procedure. For LL.B. candidates must offer Principles of Common Law and Equity and four other subjects selected from limited groups. Candidates for the LL.M. are examined in three selected subjects. Candidates for the LL.D. must hold the LL.M.

MEDICINE. The course extends normally over  $5\frac{1}{2}$  yrs. In the first yr. courses in Inorg. Chem., Phys., and Genl. Biol. in preparation for the 1st examn. for Med. degrees are taken. The 2nd and 3rd yrs. are devoted to Org. Chem. (the only subject at Pt. I. of the 2nd examn.), Hum. Anat. and Embryol., Physiol., Pharmacol. Pt. II. of the 2nd examn. is normally taken 18 mos. after passing the 1st. The Final course for the M.B., B.S. degrees falls into 2 groups as follows: Group I.—Med., Path., For. Med. and Hyg.; Group II.—Surg., and Obstetrics and Gynæcology. Examn. in the groups may be taken separately or together, but degrees are not conferred until candidates have passed in both groups.

Institutions outside the U.K. and Irish Free State, certificates from which for the complete course of Med. educn., including Clin. Med. and Surg. preparatory to the M.B., B.S. degrees for External students, are accepted by the Univ. of London: Univs. of Dalhousie, McGill, Adel. (with Infirmary), Melb. (with Melb. and Alfred Hospls.), Syd. (with Infirmary and Prince Alfred Hospl.), N.Z. (with Dunedin Hospl.); following Indian Med. Colleges—Grant (Bombay), Bengal (Calcutta), Lahore, Madras; Med. Coll., Colombo; Univ. of Malta; Sch. of Med., Cairo.

The M.D. may be taken in any of the following: Med., Path., Psych. Med., Midw. and Dis. of Women, State Med., Trop. Med.

The M.S. may be taken in Surg., Dent. Surg., Ophth., or Laryn., Ot., and Rhin.

For the M.D. or M.S. a thesis or published work may be submitted.

The course for the B.D.S. extends normally over 5 yrs.—there are 4 examns. The subjects of the Final examn. are Med., Surg., Pharm. and Mat. Med., Pathol. and Bacteriol., Oper D.S. and Orthodontics.

B.Pharm. The Interm. subjects are Bot., Chem., Physics, and Zool.; Final subjects are Bot., Chem., Pharmacognosy, and Pharmacy.

Diplomas. Clinical Pathology; Psychological Medicine; Nursing; Public

Health.

Music. The subjects for the Interm. examn. are Harmony and Counterpoint, Form and Analysis, and Hist. of Mus. For the B.Mus. examn.:—Harmony and Compn., Counterpoint, Fugue and Canon, Hist. of Music, Musical Analysis, Musical Exercise. Candidates for the B.Mus. must submit a musical exercise. For the D.Mus. there is a written examn. and a musical exercise.

Engineering. Interm. examn. subjects: Pure Maths. and Applied Maths., Heat, Elec. and Magn., Engin. Drawing, and either Sound and Optics or Chem. or Geol. In the Final examn. in Engin. not less than 5 subjects are taken, a wide choice being allowed; in Mining 6, of which Mining Geol. and Mineral., Mining, Mine Surveying, Mineral Dressing, and Assaying are compulsory; in Metall. 6, of which Metall., Metall. Analysis, Metallography and Pyrometry, Electro-Metall., and Fuel and Refractory Materials, are compulsory. For an Honours degree in Engin., Mining, or Metall. at least I extra subject must be taken at the Final examn. and a higher standard reached in all the subjects taken.

ECONOMICS. The Interm. examn. for B.Sc. (Econ.) is in 2 parts, which may be taken together or on different occasions. Pt. I.—Elements of Econ., Geog., Maths. or Logic or French or German. Pt. II.—English Econ. Hist., British Constitution. For the Final—Econ., two alternative subjects, and a selected subject. Passages are set from French, German, and Italian works for translation and comment.

For the B.Com. the Interm. examn. is in 2 parts, which may be taken together or on different occasions. Pt. I.—Elements of Econ., Geog., an approved Modern Lang. Pt. II.—English Econ. Hist., Accounting, or a subsidiary Approved Mod. Foreign Lang. The B.Com. examn. is in 2 parts: I.—the Present Organization of Industry, Banking, Trade, and Transport; Econ. Development of the Empire; Elements of Comml. Law; Statistical Method; a selected subject; II.—A selected group of subjects.

Diplomas. Academic Dip. in Public Administration (2 yrs.), also for External Students; Academic Dip. in Sociology and Social Administration (2 yrs.' course, at least 150 hours in each); Dip. in Economics and Social Sc.

(4 yrs.' part-time or shorter full-time course).

MILITARY EDUCATION. See Appendix I. Military Studies is one of the optional subjects for the Interm. and Final B.A. and B.Sc. (General) examns. An Academic Dip. in Military Studies is awarded. The Officers' Training Corps Contingent supplied 4200 officers for the war, of whom 650 are known to have fallen.

POST-GRADUATE STUDY AND RESEARCH. In most of the Colleges and Schools of the Univ. special arrangements are made for Research students, and the facilities offered are not restricted to Internal graduates of the Univ. External graduates and graduates of, and persons who have passed the degree examns. of, other approved Univs. are allowed, under certain conditions, to enter as Internal students for the degree of Bachelor or of Ph.D. in the several Faculties (but not in Medicine and Surgery), and for the degree of M.A., LL.M., or M.Sc. Application for registration may be submitted with evidence of graduation, etc., through the authorities of the College, School, or Institution at which the applicant proposes to study, and supported by their certificate of his fitness to undertake a course of study or research with a view to the proposed

degree, and that they are willing to supervise his work. An Overseas student may himself submit an application on the prescribed form, and the Univ. will, if so requested, advise as to the selection of the College, School, or Institution at which, and Teacher under whom, he should study. Application for such advice should be addressed to the Academic Registrar. Overseas students should apply for registration before coming to London, and their applications should reach the Univ. by May r, or, if from Australia or New Zealand, March r, to enable them, should their applications be successful, to enter upon their course of study in Oct., i.e. at the beignning of the session. Students whose applications are approved are required to pursue a course extending over at least 2 yrs. (v. infra—Publications).

An Internal student who is a candidate for the Ph.D. degree must have graduated in the Univ. in the faculty of Theology, Arts, Music, Medicine, Science, Engineering, or Economics, or have been registered as a candidate for the degree after passing approved examns. for a degree in another Univ. An Internal student is further required to pursue a course of study of not less than two years' full-time, or four years' part-time, training in research and research methods. Any graduate of the Univ. may become a candidate for the Ph.D. degree in his first degree Faculty as an External student on receiving the approval of the Council for External students.

FEES. Matricn.—2½ gs.; Examn. and Graduation—12 gs. (Med., 29 gs.) for first Degree. Other Degree fees, 10 to 20 gs. Tuition, see the sections relating to the several colleges.

STUDENTSHIPS AND SCHOLARSHIPS. Studentships are awarded by the Senate in aid of advanced work or research. These include one of £50 p.a. for I or 2 yrs., open to students of Univ. Coll. in Maths.; one of floo in Archæology; one of £50 in Physiology; £100 and £140 in Arts; £100 in Econ.; £200 for the man or woman who, being resident in London and a graduate of the Univ., has done most in the preceding 5 yrs. to advance Medical Art or Science; f.200 for a graduate of a British Univ. for the promotion of postgraduate research; 2 Univ. Travelling Scholarships of £275 each, open to Internal and External graduates in all faculties, and 3 Univ. Studentships of £150 each, open to Int. and Ext. graduates in Theol., Arts, Laws, Music, and Engineering; Duveen Travelling Studentship of £450 for research in Oto-Rhino-Laryngology. The Gilchrist Trustees provide funds for two Studentships, viz. one of f100 for a woman graduate preparing for a profession; and one in Mod. Langs., £80, open to a B.A. who took Honours in French or German, for a course of study abroad with a view to the profession of teaching. Three Scholarships of £50 each for 1 yr. are awarded annually for proficiency in Oriental Langs. The Scholarships Pamphlet, obtainable post free on application to the Univ., gives details of many others.

The Sir Ernest Cassel Travelling Scholarships (4) of £200 to £300 each, open to British students who pass Part I. of Final Examn. in Commerce, and propose to pursue study of Commerce abroad.

Advisory Service for External Students. Any External Student who is duly registered for an external examn. and experiences any difficulty in connexion with the appropriate studies may apply to the External Registrar for guidance. Such guidance may take the form of detailed schemes of study or personal discussion with an Advisor. For preliminary consideration there is no fee, but for detailed study scheme a fee of r-4 guineas is charged.

THE COMMERCE DEGREE BUREAU exists to help in their studies External (especially extra-London) students proposing to take the Commerce Degree examns., to assist in the employment of Commerce Degree students and

graduates at home and abroad, to provide a reference and lending library for students, and generally to promote the value and usefulness of the Commerce degree. Offices were opened in 1922 under a Board of Governors at 46 Russell Square, W.C.I, where the work of the Bureau is associated with the general UNIVERSITY APPOINTMENTS BOARD work. There is a Bureau Educational Advisory Staff (Chief Advisor: Prof. A. J. Sargent, M.A.). Prospectus and enquiry forms obtainable on application to the Secretary, H. J. Crawford, B.A.

RESIDENCE. Hostels recognized by the Senate: Connaught Hall of Residence, 16-20 Torrington Square, W.C.1; Univ. Coll. Hall, Ealing, for 52 men students (fees for residence, 30s. to £3 a week); College Hall, Byng Place, Gordon Square, W.C.1, for women students; King's Coll. Theological Hostel, Vincent Square, S.W.1; The Platanes, Denmark Hıll, S.E.5, for Kıng's Coll. and its Med. School. Residence is also provided at or in connexion with the S.E. Agric. Coll., Wye, Bart.'s, Guy's and Middlesex Hospl. Mcd. Schools, the Theol. Colls. at Hampstead and Highbury, and the Women's Colleges.

A Union Society on the lines of those of Oxford and Cambridge was founded in March 1921. Address—University Union, 68 Torrington Square, W.C.I. There is also an Assocn. of London Graduates. A University Country Club at Chequers was formed (by a private company) in 1924.

University Extension. The work of the University Extension and Tutorial Classes Council may be considered to fall under the following heads: (a) Univ. Extension Lectures and Tutorial Classes; (b) Holiday Courses for Foreigners; (c) Examn, for the Certif. in Religious Knowledge; (d) Examns, for Certificate of Proficiency in English, and for Certifs. in Danish, French, German, Italian, Norwegian, Russian, Spanish, and Swedish; (c) Examn. for Certif. in Diction and Drama; (f) Examns. for Diplomas in History, Literature, Economics and Social Science, History of Art, the Literary, Historical and Comparative Study of the Bible; (g) Examn. for Diploma in Psychological Medicine; (h) Examn. for Diploma in Dramatic Art; (i) Examn. for Diploma in Nursing; (j) Examn. for Diploma in Theory and Practice of Physical Education.

(a) Univ. Extension Lectures have been carried on by the Univ. since 1902 (prior to that, since 1876, by the London Society for the Extension of Univ. Teaching). Courses are held, at about 55 centres, on Hist., Lit., Econ. and Social Sc., Study of the Bible, Philos., Geography, Music, Painting, Architecture, and Nat. Sc. A class is held in connexion with each lecture, and students are encouraged to do regular written work for the lectr. An examn. for certifs. may be held at the end of each Sessional (24 or 25 lectures) or Terminal (10 or 12 lectures) course. A few short courses (5 or 6 lectures) of a pioneer or illustrative kind are arranged; in connexion with these there is no examn. Continuous study over several years is encouraged by the Vice-Chancellor's Certif. of Continuous Study (awarded to students who obtain 4 Sessional Certifs. in the same general subject or cognate subjects) and by the Diplomas in the Humanities (Hist., Lit., Econ. and Social Science, Hist. of Art, the Literary, Historical and Comparative Study of the Bible), awarded, under the Seal of the Univ., to students who carry on an approved co-ordinated course of study usually covering 4 yrs., and pass the required examns. (Diplomas in Hist., Lit., and Econ. and Soc. Sci. are also awarded on the result of One Year Fulltime study; Diplomas in Econ. and Soc. Sci., and Hist. of Art on the result of 2 yrs.' part-time study).

The Tutorial Classes for Working-people extend over 3 consecutive years, and membership is usually limited to about 24 students, who undertake to

attend regularly and to do regular written work for the tutor. Certifs. are not awarded.

- (b) A Holiday Course for Foreigners is held annually in London during four weeks from the middle of July. Special stress is laid upon Phonetic teaching. The course is designed to widen the students' knowledge not only of the Engl. Lang., but of English customs, institus., and art, by means of lectures, classes, excursions, etc. The total number of students admitted to the course is limited to about 300, and the number in each class to 8. During the 24 years 1904–1914 and 1919–1931 the course was attended by 5941 students from 50 countries.
- (c) The Examination for the Certificate in Religious Knowledge is held once a year in June. It may be held at certain of the Provincial centres at which the June Matricn. examn. is appointed to be held, as well as in London.
- (d) Examinations for Certificate of Proficiency in English ((i) for foreigners, (ii) for English-born) in Aug. and Dec. or as may be arranged. They are intended to provide evidence, which may not be guaranteed by a teacher's other certificates, of such a practical working knowledge of the English language, written and spoken, and of such acquaintance with Phonetics, as may be of special value for teaching English in foreign countries (Scheme A), or to foreign students (Scheme B).
- (e) Examinations for the Certificates in French, German, Italian, Russian, Spanish, Danish, Norwegian, and Swedish are held in July or as may be arranged. They are intended primarily for teachers who are not specialists in, but who require a Certif. testifying to their practical working knowledge of, the language, both spoken and written.
- (f) The Examination for the Certificate in Diction and Drama is held once a year, in July, and is open to Registered Teachers, to Teachers on the Provisional and Associate Registers, and to others specially approved, who have taken a one-yr. course at Training Schools or Institutions approved for the third-yr. course for the Diploma in Dramatic Art.
- (g) The Examinations for the Diplomas in History; Literature—English Lang, and Lit. or General Lit.; Economics and Social Science; History of Art; and the Literary, Historical and Comparative Study of the Bible—are held once a year for students who have followed a recognized course of study for 4 yrs. as part-time students, or in some cases for a shorter period.
- (h) The Examn. for the Diploma in Psychological Medicine is held twice a year, in March and Apr. and in Oct. and Nov., and is open to candidates whose names are in the Medical Register. There are two varieties of this Dip., for those desiring to specialize in Mental Diseases and in Mental Deficiency respectively.
- (i) The Examn. for the Diploma in Dramatic Art is held once a year, in July, and is open to students whose general education satisfies the Council and who have studied at least 2 yrs., after attaining the age of 17 yrs., at Training Schools or Institutions where courses have been approved.
- (j) The Examn. for the Diploma in Nursing is held once a year in October and November, and is open to Registered Nurses (or Nurses eligible to sit for the prescribed examn. for registration) whose general education satisfies the Council, subject to certain specified conditions with regard to Part B of the Examn.
- (k) Examns. for the Diploma in the Theory and Practice of Physical Education will be held—Part I. twice a yr., in June and Dec., Part II. once a yr., in May,

open to students who, after completing their 18th yr., have studied at least 2 yrs. before Part I. and 3 yrs. before Part II. at Physical Training Colleges whose courses have been approved.

[Further information and copies of the Regns. may be obtained from the University Extension Registrar, University of London, South Kensington, S.W. 7.]

Inspection and Examination of Schools. A close relationship between examination and inspection has been carefully and continuously developed by the Univ. The County Councils of Middlesex and Surrey have placed their Secondary Schools to the number of 75 under the Univ. for regular inspection and for the holding of the School examns, the local authority in each case making a special financial arrangement with the Univ.

Inspection may include either a general inspection of the whole school or a special inspection of certain subjects or groups of subjects. It may be so combined with the Certificate examns. that these form an integral part of it. It may also include an examn. carried on by the Inspectors and the Staff of the school in co-operation. This system of combined inspection and examn. is known as Examinational Inspection, and is capable of considerable variation

to meet the requirements of any particular school.

The Examinations for School Certificates are held only in Schools inspected by the Univ. or under other approved inspection; the course of study in the school must also be approved. The examns are of 3 grades: I. Higher, II. General, and III. Junior; for I. the Higher School Certif.; II., the School Certif.; and III., the Junior School Certif., respectively. Certifs. I. and II. are not awarded until the pupil leaves school. The examn. fees are from fit to f3. At the General candidates may qualify for Matricn. Certifs., and at the Higher for exemption from Interm. Examns. (Arts, Sci., Comm., Econ., Engin.), extra fees being payable.

The Higher and General School Examinations are recognized by the Board of Education as "Second" and "First" examns. (v. p. 4) respectively, and the Certifs. I. and II. awarded to candidates attending schools recognized by it as efficient Secondary Schools are attested by it. The combination of subjects that may be taken at the General School examn. offers greater variety than is the case in the Matricn. examn., and a pupil who reaches the necessary standard at one and the same examn. in a combination required for Matricn. is entitled on payment of the registration fee of 175. 6d. to be registered as a Matriculated student of the Univ., if or when he has attained the prescribed age.

The Junior School Examination is intended for pupils about the age

of 15. It will be held for the last time in 1932.

In the case of each of the School examns. an Inspector visits the school for the purpose of conducting an oral examn. in such Mod. Langs. as are taken. Practical examns. in Science are optional, except in the case of grade I., in which they form an essential part of the examn.

Publications. The following are obtainable from the Univ. of Lond. Press, Ltd., 10-11 Warwick Lane, London, E.C.4:

The Calendar, pubd. in Sept., price 6s. net, postage 9d. Regns. and Courses for Internal Students (the "Red Book"), pubd. in Sept., 2s. 6d., postage 9d. The Courses are pubd. separately for the several Faculties. The Regulations for External Students (the "Blue Book"), pubd. in Sept., 1s. 6d. nct, postage 6d.; London Univ. Gazette, pubd. at average intervals of 4 weeks; the Examn. Lists are pubd. in Supplts.; annual subs., including postage, 5s.; single no., 7d. Matriculation Pamphlet, issued after each Examn., containing the Regns. and Examn. Papers, 1s. 8d. post free. Examn. Papers, published as

soon as possible after the several Examns.; prices vary from 10d. to 2s. 11d. Libraries of London: a Guide to Students, by R. A. Rye, Goldsmiths' Librarian, 3rd edition, 10s. Historical Record of the Univ., Second Issue, 1836–1926, contains (a) a Hist. of the Univ.; (b) former Fellows; (c) Donations and Trusts; (d) Graduates; (e) persons to whom prizes, etc., have been awarded; 5s. net., postage 6d.

Regulations. The following may be obtained on application to the Univ.: Regns. for Matricn.; Regns. for Int. and for Ext. Students (pubd. separately) for Degrees in Arts, Science, Agric., etc.; for the various Diplomas and Certificates in special subjects; for Ph.D. Degree; Scholarships pamphlet. Applications for any of these should be addressed to the Principal.

O.T.C. Handbook obtainable from the Secy., 46 Russell Sq., W.C.I.

# THE YEAR 1930-31

Benefactions. Bequest (subject to a life interest) by Lady Durning Lawrence of her Library. See also under Univ. and King's Colls.

NEW Posts. Chair of History of Art. Chair of Belgian Studies and Instns. At *Univ. Coll.*: Readership in Engl. Law. At *King's Coll.*: Chair of Philos. At *London Sch. of Econ.*: Readership in Econ. Hist. At *School of Orient. Studies*: Readership in Arabic. At *Westfield Coll.*: Readership in Maths. At *London School of Hygiene*: Chair of Medical Industrial Psychol. At *Cancer Hosp.*: Chair of Experiml. Pathol.

OTHER DEVELOPMENTS. Academic Diploma in Military Studies instituted. Board of Studies in Estate Management constituted. A Board of Discipline, for the purpose of maintaining a proper standard of conduct among students constituted. A Lodgings Information Bureau (address: Univ. Union, 68 Torrington Sq., W.C.I) established to compile a register of lodgings suitable for students. The University Sports ground at Hotspur Park formally opened by the Chancellor, May 1931.

Honorary Degrees. *LL.D.*—Rt. Hon. Lord Macmillan; His Ex. T. G. Masaryk. *D.Sc.*—Prof. Sir F. Gowland Hopkins, P.R.S., Rt. Hon. Baron Rutherford of Nelson, O.M., F.R.S.; Sir Charles S. Sherrington, O.M., F.R.S.; Gen. the Rt. Hon. J. C. Smuts, C.H., F.R.S.; Sir Joseph J. Thomson, O.M., F.R.S.

STUDENTS. Total admissions in the year 1930 were 11,589, of whom 3064 were exempted from the ordinary matricn. examn.: 474 as graduates of other Univs., 2371 as holders of approved certificates, and 219 after passing the Special Univ. Entrance examn. Of 4616 candidates for first degrees, 2670 were internal and 1946 external. The total number of internal students on the rolls was 11,452, while over 7000 were registered as external.

University Extension. Number of Lecture Courses: Sessional (24 or 25 Lectures), 49; Terminal (10 or 12 Lectures), 34; Short (4 or more Lectures), 29. Terminal entries of Students for all Courses, 11,330. Humanities Diploma Students, 588. Number of Univ. Tutorial Classes, 59 (and one non-grant earning Advanced Study Group); Students, 1202.

The Holiday Course for Foreigners was as popular as ever, and numerous applications for admission had to be refused. There were 294 students, representing 25 nationalities.

VISITORS who lectured in the Univ.: Prof. E. Brunner of Zurich (Theol.); M. M. Aubert of Paris (Archæol.); Prof. C. H. Grandgent of Harvard (Comp. Philol.); Prof. F. von der Leyen of Köln (German); Prof. B. Hrozny of Prag

(Oriental Studies); Prof. J. Piaget of Geneva (Pedag.); Prof. A. O. Lovejoy of Johns Hopkins (Philos.); Prof. K. S. Lashley of Chicago (Psychol.); M. M. Roques of Paris (French); Prof. R. Redslob of Strasbourg (Laws); Prof. B. Brouwer of Amsterdam (Anat.); Dr. M. Cheval of Brussels (Mcd.); Prof. O. Förster of Breslau (Neurol.); Prof. K. Freudenberg of Heidelberg (Chem.); Prof. A. Penck of Berlin (Geog.); Dr. H. de Böckh of Budapest (Geol.); Prof. A. March of Paris (Statist.); Prof. H. Spemann of Freiburg (Zool.); Prof. F. A. von Hayek of Vienna (Econ.); Prof. W. E. Rappard of Geneva (Econ.); Prof. M. Jakob of Berlin (Engin.); Prof. P. P. Ewald of Stuttgart (Physics); Prof. H. Pirenne of Ghent (Hist.).

# UNIVERSITY OF LONDON, UNIVERSITY COLLEGE

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PROVOST-ALLEN MAWER, M.A., Litt.D. Camb., F.B.A.

DEANS OF FACULTIES. See under "General Information"—Faculties. SECRETARY—C. O. G. DOUIE.

TUTOR TO WOMEN STUDENTS—EDITH GOODYEAR, B.Sc.

LIBRARIAN—J. A. WILKS, M.A.

#### PROFESSORS, LECTURERS, ETC.

A n a t o m y

Smith, G. Elliot, M.A. Camb., Litt.D. Manc., M.D., M.S. Syd., D.Sc. Belf., Ch.M., F.R.C.P., F.R.S. Prof.

Hill, J. P., D.Sc. Edin., Sc.D. Dub., F.R.S. Prof. (Embryol.).

Harris, H. A., D.Sc., M.B., B.S., B.Sc. Wales (Clin. A.).

Prof. and Curator of Museum.

Kirk, J., M.B., Ch.B. Edin., F.R.C.S.E. Sr. Demr. Goldby, F., B.A., M.B., Ch.B. Camb. Sr. Demr.

Young, M., M.D. Glas. Lectr. Fielding, Una, M.B., Ch.M.

Lectr. and Demr. 4 Hon. Lectrs. (2 Radiol., 1 Cytol., 1 Ethnol.) and 3 Hon. Research Assts.

2 Demrs., 1 Hon. Demr., and 1 Senr. Asst., 2 Hon. Assts.

Anthropology, Cultural [Reader. Perry, W. J., M.A. Camb., D.Sc. Archæology, v. also Egyptol. Ashmole, Bernard, M.A., B.Litt.

Ox. Yates Prof.

Gardner, E. A., Litt.D. Camb. and Dub. Yates Lectr. Wheeler, R. E. M., M.A., D.Lit. (Brit. Archæol.) Lectr.

Architecture

Richardson, A. E., F.S.A., F.R.I.B.A. Prof.

Adshead, S. D., M.A. Liv., M.Arch., F.R.I.B.A.

Prof. (Town Planning). Corfiato, H. Sr. Lectr.

Wilson, H. Warren, A.R.C.A. Lectr. (Decoration).

Dawson, M. J., F.R.I.B.A.

Lectr. (Building Constrn.).
Stanley, L. S., M.A. Camb.,
A.R.I.B.A. Lectr. & Tutor

I Sr. Asst., 2 Asst. Lectrs., I Asst.

Art (Fine Arts)
Schwabe, R. Slade Prof.
Borenius, Tancred, D.Lit., Ph.D.

Helsing.
Durning-Lawrence Prof.

(History of Art).

Bayes, W., A.R.W.S. Lectr. 9 Assts. and 1 Demr.

Astronomy, v. Maths.

Mullen, J. P., M.Eng. Liv. Lectr. Donald, M. B., M.Sc. Mass. Inst.

[Prof. (Greek).

Prof. (Latin).

Technol., A.R.C.S.

Smiley, M. T., M.A. Dub.

Butler, H. E., M.A. Ox.

Classics

Botany

Bio-Chemistry, v. Physiol.

Prof. of Plant Physiol.

Quain Prof.

Hill, T. G., D.Sc., A.R.C.S.

Haas, P., Ph.D. Freib., D.Sc.

Salisbury, E. J., D.Sc.

Reader (Plant Chem.). Solomon, L., M.A. Ox. Sr. Lectr. Cutting, E. M., M.A. Camb. Vaughan, Elinor J., M.A. Lectr. Sr. Lectr. Lockwood, J. F., M.A. (Gk.) Lectr. M'Lellan, R. D., B.A. (Lat.) Lectr. 1 Lectr., 1 Asst. Lectr., 1 Quain Studt. I Asst. Celtic Danish, v. Scand. Flower, R. E., B.A. Ox., D.Litt. Dutch History Hon. Lectr. Geyl, P., Lit.D. Leyd. Prof. Chemistry Dutch Lang. and Lit. Donnan, F. G., C.B.E., M.A. Weevers, Th., Litt.D. Gron. Lectr. N.U.I., LL.D. Edin. and St. And., Ph.D. Leip., D.Sc. Liv. Economics, v. Polit. Econ. and Belf., F.I.C., F.R.S. Economic Geography, v. Geog. Prof. and Dir. of Labs. Egyptology and Coptic Ingold, C. K., D.Sc., F.R.S. Prof. Collie, J. Norman, Ph.D. Würz., Petrie, Sir Flinders, D.C.L. Ox., LL.D. Glas., D.Sc. Liv. and LL.D. Aberd., F.B.A., F.R.S. Belf., F.R.S. Edwards Prof. Asst. Prof. Emer. Prof. and Hon. Lectr. Murray, Margaret A. Brady, O. L., B.A. Cape, D.Sc., 1 Hon. Asst. F.I.C. Reader (Org. C.). Embryology, v. Anatomy Barratt, S., B.A. Ox. Engineering, Electrical Reader (Phys. C.). Clinton, W. C., B.Sc., M.Inst.E.E. Evans, H. J., B.Sc. Sr. Lectr. (Med. Students). Pender Prof. Barlow, H. E. M., B.Sc., Ph.D. Terrey, H., B.Sc. Senr. Lectr. in Electro-Sr. Lectr. (Inorganic Analyt.). Bailey, C. R., B.A., M.Sc. Communications. Sr. Lectr. Bayliss, C. W., B.A. Camb. Lectrs.: Lectr. in Electrical Ma-Gilbert, L. F., B.Sc. chinery. Day, J. N. E., M.Sc., A.R.C.S. 1 Demr. Topley, B., M.A. Ox. Engineering, Civil and Mechani-Le Fèvre, R. J., M.Sc., Ph.D. cal, v. also next heading Walker, O. J., Ph.D. Edin. Coker, E. G., M.A. Camb., D.Sc. Goodeve, C. F., M.Sc. Manit. (Eng.) Edin., M.Inst.C.E., 4 Hon. Lectrs. F.R.S. (Dean) 4 Hon. Research Associates. The Prof. of Munic. Eng. Chemical Engineering Reader (Surveying). Gibbs, W. E., D.Sc. Liv. Lloyd-Evans, В. T., M.Sc., Ramsay Prof. M.I.Mech.E. Asst. Prof.

Collins, H. J., M.Sc. (Eng.) Birm.

Pearson, E. S., M.A. Camb., D.Sc.

Asst. Prof. Sr. Lectr. Davidge, H. T., B.Sc., M.Inst.E.E. Bell, Tulia. M.A., M.R.C.P., Sr. Lectr. M.R.C.S. Webb, A. E., B.Sc. Sr. Lectr. Hon. Galton Research Fellow. Cookson, A. C., M.Inst.C.E. Morant, G. M., D.Sc. Lectr. (Railway E.). I Asst., I Research Asst., I Hon. Cunningham, Brysson, D.Sc. Belf., Research Asst., I Mathl. Asst. B.E. N.U.I., M.Inst.C.E. French, v. also Hist. Lectr. (Waterways, Har-Brandin, L. M., M.A., Ph.D. bours, and Docks). Greifs. Fielden Prof. Capper, P. L., M.Sc. Lectr. Jeaffreson, J. W., M.A. Sr. Lectr. 2 Sr. Assts. Sr. Lectr. Stéphan, E. M. Schlumberger, Beatrice J., M.A. Engineering, Municipal Ormsby, M. T. M., A.R.C.S. Dub., Lectr. M.Inst.C.E.I. (Reader in Sur-Starke, Dora, M.A. Tancock, L. W., B.A., Ph.D. Lectr veying also) Chadwick Prof. Delafield, M. E., M.B., B.Ch., I Asst. D.P.H. Spl. Lectr. (Hygiene). Geography Hart, C. A., B.Sc. Lectr. Fawcett, C. B., D.Sc., B.Litt. Ox. Prof. (Econ. and Regl. G.) English Chambers, R. W., M.A., D.Lit., The Prof. of Munic. Engin. Reader (Surveying). Quain Prof. F.B.A. Sisson, C. J., M.A. Edin., D. ès L. Buchanan, R. O., M.A. N.Z., B.Sc. Dijon Lord Northcliffe Prof. (Econ.) Lectr. Dickinson, R. E., M.A. Leeds Lectr. de la Mare, W. Lord Northcliffe Lectr., Hart, C. A., B.Sc. Lectr. 1931-32. I Asst. Lectr., I Asst. Blackman, Elsie, M.A. Sr. Lectr. Geography, Physical, Geology and Sutherland, J. R., M.A. Aberd., Mineralogy Sr. Lectr. ' B.Litt. Ox. King, W. B. R., O.B.E., M.A. Batho, Edith C., M.A. Sr. Lectr. Camb. Yates-Goldsmid Prof. Baker, E. A., M.A., D.Lit. Lectr. Chubb, L. J., M.Sc. Lectr. Hitchcock, Elsie V., B.A., Ph.D., Goodyear, Edith, B.Sc. D.Lit. Lectr. Hon. Lectr. Smith, A. H., Ph.D. Leeds Lectr. Earle, K. W., D.Sc. Sr. Asst. I Senr. Asst., I Asst. Lectr., I I Demr. Quain Studt. German Eugenics and Applied Statistics Robertson, J. G., M.A., Litt.D. Pearson, Karl, M.A. Camb., LL.D. Dub., B.Sc. Glas., Ph.D. Leip., Aberd. and St. And., F.R.S. Prof. Galton Prof. F.B.A. Willoughby, L. A., M.A., D.Litt., Elderton, Ethel M. Ph.D. Vienna Prof. Reader, Galton Research Perrett, W., B.A., Ph.D. Jena Fellow. Stocks, P., M.A., M.D., B.Ch. Reader. Camb., D.P.H., Ch.B. Manc. Reader. Norman, F., M.A. Reader in Med. Statistics. 2 Assts.

Hebrew, v. also Semitic
..... Goldsmid Prof.
Hirschfeld, H., Ph.D. Strass.
Goldsmid Lectr.

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Astor Prof. (English H.). Davis, Eliza Jeffries, M.A., F.S.A.

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Williams, C. H., M.A. Camb.

Reader (Constl. H.).

Vaucher, Paul, D. ès L. Paris Prof. (Mod. French H.).

Bellot, H. Hale, M.A. Ox. Commonwealth Fund Prof. (Amer. H.).

Baynes, Norman H., M.A. Ox., F.B.A.

Prof. (Byzantine H.) and Director of Evening School of H.

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Reader (Ancient H.). 4 Asst. Lectrs., 1 Asst.

History and Method of Science Wolf, A., M.A. Camb., D.Lit.

Prof. (Logic and Scientific Method).

McKie, D., B.Sc., Ph.D. Lectr. 2 Assts.

Italian

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Reader and Barlow Lectr.
Cippico, Senator A., Dr. Jur. Graz
Hon Lectr (Modern I Lit)

Hon. Lectr. (Modern I. Lit.). Bassani, A. M., Sc.D. Lectr.

Journalism [Tutor. Solomon, Lawrence, M.A. Ox.

Law. v. p. 186.

Librarianship

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Director and Lectr.

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Lectrs.:

Esdaile, Arundell, M.A. (Bibliography).

Prideaux, W. R. B., B.A. (Cataloguing and Indexing).

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Headicar, B. M. (Lib. Organization).

Doubleday, W. E. (Lib. Routine). Acomb, H. W., M.A. Camb. (Practical Cataloguing).

Galbraith, V. H., M.A. (Palæog. and Archives).

Chambers, Prof. R. W. (Literary History).

Mathematics (Applied) and Mechanics

Filon, L. N. G., B.A. Camb., M.A., D.Sc., F.R.S.

Goldsmid Prof. and Dir. of Observatory.

The Senior Lectr. (Davidge, H. T.) in Civil and Mech. Engin.

Jessop, H. T., M.Sc. Sr. Lectr. Harris, H. J., B.A. Sr. Lectr. Gregory, C. C. L., M.A. Camb., F.R.A.S.

Sen. Lectr. (Astronomy) and Wilson Observer.

Stevenson, A. C., M.Sc. Lectr.

I Asst., I Research Asst., and I

Hon. Asst.

Mathematics (Pure) [Astor Prof. Jeffery, G. B., M.A., D.Sc., F.R.S. Wren, T. L., M.A. Camb.

Reader (Geom.).
Harris, H. J., B.A. Sr. Lectr.
Bosanquet, L. S., M.A. Ox.,
D.Phil. Lectr.
Estermann, T., D.Sc. Lectr.

2 Asst. Lectrs., 3 Demrs.

Medicine, History of Singer, C., M.D., D.Litt. Ox., F.R.C.P. Prof.

4 Hon. Research Assts.

Norwegian, v. Scand.

Pharmacology	Chalklin, F. C., B.Sc., Ph.D.
Verney, E. B., M.A., M.B., B.Ch.	Lectr.
Camb., F.R.C.P., M.R.C.S.	Brown, G. B., M.Sc. Lectr.
Prof.	Brown, R. C., B.Sc. Lectr.
Ing, H. R., M.A., D.Phil. Lectr.	2 Asst. Lectrs.
3 Assts.	Physiology
Philology	Evans, C. A. Lovatt, D.Sc.,
Thomas, F. W., C.I.E., M.A.	F.R.C.P., F.R.S. Jodrell Prof.
Camb., Ph.D. Mun., F.B.A.	Drummond, J. C., D.Sc.
Lectr. (Comparative P.).	Prof. (Bio-Chem.).
Philosophy	Hill, A. V., O.B.E., M.A., Sc.D.
Macmurray, J., M.A. Ox. and	Camb., LL.D. Edin., F.R.S.
Glas.	Foulerton Prof. and Univ.
Grote Prof. (Philos. of	Prof.
Mind and Logic).	Harris, D. T., D.Sc., M.B., B.S.
Keeling, S. V., M.A., B.A. Camb.,	Wales, Ch.B. Manc. Asst. Prof.
D. ès L. Montp. Lectr.	Gilding, H. P., M.A., B.M., B.Ch. Ox. Sr. Lectr.
Phonetics	Ox. Sr. Lectr. Kerridge, Phyllis M. Tookey,
Jones, Daniel, M.A. Camb. Prof.	M.Sc., Ph.D. Lectr.
Perrett, W., B.A., Ph.D. Jena	Newton, W. H., M.B., B.Ch., M.Sc.
Reader (German).	Manc. Lectr.
Sr. Lectrs.:	Marrian, G. F., D.Sc. Lectr.
Armstrong, Lilias E., B.A. Leeds	Lythgoe, R. J., M.A., M.D.
Ward, Ida C., B.Litt. Durh.	Hon. Lectr.
Firth, J. R., M.A. Leeds	I Hon. Research Assoc.
Jones, S., B.Sc. Wales	2 Assts., 5 Hon. Research Assts.,
Superint. of Lab.	2 Hon. Assts.
Lloyd-James, A., M.A. Camb.	Political Economy
Hon. Lectr.	Prof.
Coustenoble, Hélène Lectr.	Ohlin, Prof. B.
Quick, Edith E., B.A. Lectr. Davies, Hyacinth M. Sr. Asst.	Newmarch Lectr.
Davies, Hyacinth M. Sr. Asst. Lund, Sophie C. Sr. Asst.	Hall, N. F., B.A. Ox., M.A.
i Asst.	Princeton Senr. Lectr.
	Gaitskell, H. T. N., B.A. Lectr. and Tutor to
Physics	Higher Civ. Service
Andrade, E. N. da C., D.Sc., Ph.D.	Students.
Heid.	ı Asst. Lectr.
Quain Prof. and Dir. of	
Labs. Wood, D. Orson, M.Sc., A.R.C.S.,	Psychology Burt, C., M.A., D.Sc.
F.Inst.P.	Acting H. of Dept., Prof.
Sr. Lectr. and Depy. Dir.	Flugel, J. C., B.A. Ox., D.Sc.
of Labs.	Asst. Prof.
Bates, L. F., B.Sc. Bris., Ph.D.	Philpott, S. J. F., B.Sc. Lectr.
Camb., F.Inst.P. Reader.	Hopkins, Pryns, Ph.D., M.A.
Eumorfopoulos, N., B.Sc.	Hon. Lectr.
Hon. Research Asst.	3 Research Assts., 1 Hon. Research
Gibbs, R. E., D.Sc. Lectr.	Asst.
	' <b>κ</b>

Scandinavian Studies
Robertson, Prof. J. G. Director.
Helweg, J. H., Cand. Mag. Copenhagen

Queen Alexandra Lectr. (Danish).

Gröndahl, I. C., Cand. Mag. Oslo W. P. Ker Lectr. (Norwegian). Wijk, A. M., Fil. Mag. Uppsala Crown Princess Louise

Lectr. (Swedish).

Semitic (North) Epigraphy Hirschfeld, H., Ph.D. Stras. (Goldsmid Lectr. in Hebrew) Lectr. Statistics, v. Eugenics

Surveying, v. Engineering, Munic.

Tibetan

Thomas, F. W., C.I.E., M.A. Camb., Ph.D. Mun., F.B.A. Reader.

Town Planning, v. Archit.

Zoology & Comparative Anatomy Watson, D. M. S., M.Sc. Manc., D.Sc., F.R.S. Jodrell Prof. Fraser, Elizabeth, D.Sc. Reader. Wells, G. P., M.A. Lectr. 3 Asst. Lectrs., 1 Hon. Asst.

## GENERAL INFORMATION

Address—Gower St., W.C.r. Telegrams—University College, London.

Founded in 1826 and opened Oct. 1, 1828, under the name of "The University of London," the College was incorporated as "University College, London," by Royal Charter in 1836. On Jan. 1, 1907, it was incorporated in the University of London.

Libraries (containing, in all, 310,000 bound vols. and pamphlets): (1) General, including Barlow (Dante), Carnegie (American History and Institus.), Field (Fine Art), Morris, Ricardo (Polit. Econ.), Rotton, Strong (Oriental), and Whitley Stokes (Celtic) collections, and the Bentham MSS.; (2) Science, including Ramsay (Chem.), Grant (Zool.), and Graves (Maths.), collections, the Library of the Geologists' Assn., the books deposited by the London Mathematical Soc. and the Malacological Soc., and an exceptionally complete collection of scientific journals; (3) Med. Sciences, including Sharpey (Anat. and Physiol.) collection; (4) Special Arts Libraries for: Archit., Classical Archæol. (Yates), Classics and Anc. Hist., Egyptol. (Edwards), English, French, German, Geog., Italian, Hist., Jewish Hist. and Antiq. (Mocatta), Librarianship, London Hist., Philos. and Psychol., Phonetics, and Scandinavian; (5) Law Library, including Blackburn and Quain collections.

Museums. Anat., Archit., Bot., Egypt., Engin., Geol. and Mineral., Vulcanological (Johnston-Lavis Collection), Zool. Two Astron. Observatories.

FACULTIES. Arts, Laws, Science, Engineering, Medical Sciences. Deans: Prof. MacMurray, Mr. Sabonadière, Profs. T. G. Hill, Coker, Drummond.

Courses. Arts, Laws, Science, Eng., Medical Prelim. and Intermediate. Open to students of both sexes. The Arts Faculty includes Slade School of Fine Art, School of Librarianship, School of Journalism, and Bartlett School of Archit. The Engineering Faculty includes Depts. of Civil and Mcchanical (with sub-depts. of Graphics and Surveying), Elec. Eng. and Munic. Eng. and Hygiene. A Dipl. in Eng. is given after a 3 yrs.' course, and Certifs. in Eng. (2 yrs.); a Dipl. in Archit. (5 yrs.) and a Certif. in Archit. (3 yrs.); a Certif. in Decoration (3 yrs.); a Dipl. in Chem. Eng. (3 terms).

All departments of the College are available for fost-graduate and research work, and the respective Profs. are always prepared to advise students wishing to undertake research.

Department of Applied Statistics. The Francis Galton Laboratory for National Eugenics was founded in 1904 for the study of those agencies under social control that may improve or impair the racial qualities of future generations, either physically or mentally. It is open to Research students in Eugenics of both sexes. The Drapers' Company's Biometric Laboratory, founded 1895, for the statistical study of biological problems, possesses a good collection of calculating machines, integrating mechanisms, moment-finders, as well as a large series of statistical models, measuring instruments, etc. Research workers can start at any time during the session, but, unless attending the lectures in the Dept., are expected to have a preliminary training either in Biology or Maths.

Courses of Instruction are given on Statistics and cognate subjects, and also short courses of popular lectures. Fees (for Research workers): per term,  $f_4$ : 14: 6. A fee of 17 gs. per session admits to the Eugenic and Biometric Labs. on all days and to all lectures, as well as to the use of the Library and of the material in the Archives. Fee for use of calculating machines,  $\mathbf{1}_{\frac{1}{2}}$  gs. per term. For list of publications,  $\mathbf{v}$ . infra.

The Bartlett School of Architecture was established by the combination of the Archit. Schools of University and King's Colleges. The Certificate (3 yrs.) and Diploma (5 yrs.) courses are recognized by the R.I.B.A. as exempting from the R.I.B.A Intermediate and Final examns. respectively. A Division of Decoration, instituted with the co-operation of the Inc. Institute of British Decorators, provides a 3-yrs.' Certificate Course. The accommodation includes three large Studios, a Museum, a Cast Gallery, a Library, a Lecture Theatre, and a Class Room. Rooms are also provided for the Department of Town Planning instituted in Oct. 1914. The day work is supplemented by evening classes in design. There is an Atelier for graduates and advanced students.

Foreign Students are admitted to the College on the same terms as British-They are expected to produce identification papers. In August a Vacation Course is held in Phonetics and Spoken English (Director: Prof. Daniel Jones). Men attending that Course can reside at University College Hall, Ealing. Special courses in Aspects of British Life and Civilization take place throughout the session. The Ramsay Memorial Fellowships in Chemical Science founded by certain Foreign Governments are tenable at Univ. Coll., London, among other places; 6 Fellows from overseas are now working there.

FEES. Composition for 3 sessions' course in Arts—98 to 105 gs.; 5 sessions' course in Archit.—228 gs.; 3 sessions' course in Science—135 to 140 gs.; Engin.—168 gs.; Econ.—26 gs. per session; Med. for 1st examn.—35, 2nd—80 gs.; Laws—Day 26 gs., Evening 20 gs. per session; Fine Art—28 gs. per session; for Higher Civil Service—50 gs. (35 gs. to those who have taken undergraduate course at the College).

Scholarships, etc. Annual value, about £3897 (including £1542, Entrance Scholarships). Extra Bursaries amounting to £342 were granted in 1930-31. In addition, Exhibition Bursaries (towards fees) amounting to £325 were granted.

RESIDENCE. A Hall for 70 men at Ealing, £2 to £3 a week. One for women (79) in Byng Place, W.C.I, 84 to II7 gns. per Coll. session of about 33 weeks. A new building for the Women's Hall (College Hall, London) is under erection.

Publications. Calendar (Oct.), 3s. 6d.; Annual Report; University College Magazine; the various Faculty and Departmental Prospectuses; Prospectus

of post-graduate courses and arrangements for research. Dept. of Applied Statistics: Annals of Eugenics, a Journal for the scientific study of Racial Problems, vols. I.-IV.; Eugenics Lab. Memoirs (i.-xxvi.) and Lecture Series (i.-xiv., popular exposition of conclusions); Treasury of Human Inheritance (14 parts). Biometrika Journal (i.-xxiii.); Drapers' Company Research Memoirs, Biometric Series (i.-xii.), and Studies in Natural Deterioration (i.-xiii.); Drapers' Company Technical Series (i.-vii.); Tracts for Computors (i.-xvii.). Ephemeral papers published in Questions of the Day and the Fray (i.-xiii.).

# THE YEAR 1930-31

Benefactions. A fund for the endowment of the Alexander Kennedy Chair of Civ. and Mech. Engin., subscribed by friends and admirers of the late Sir Alexander Kennedy (Prof. of Civ. and Mech. Engin., 1874–1889; pioneer in engin. education), amounted (end of July 1931) to £19,283. The Building and Equipment Fund for the Ramsay Memorial Lab. of Chem. Engin. amounted to: Capital gifts, £26,500 (with deposit interest); aggregate of annual gifts (payment spread over 10 yrs.), £33,455; Drapers' Company, £500 for Biometrics; per Italian Ambassador, £300 for Italian; Rhodes Trust, £200 towards Chair of Constitutional Law; Chadwick Trust, £200 for Munic. Eng. and Hygiene; Incorporated Institute of British Decorators, £250 for Division of Decoration, Sch. of Archit.; bequest of late Prof. William Wyse, £1000 for general purposes; bequest of late Mr. G. H. Hurst, £250 towards study of English Law; Mrs. M. W. Wharrie, £100 for the Students' Loan and Bursary Fund; Dr. A. C. Chibnall, £50 for Depts. of Biochemistry and Botany.

ACCOMMODATION. The Ramsay Memorial Lab. of Chem. Engin. expected to be ready early in the session 1931–32. The new Exhibition Room, provided by Sir Joseph Duveen, Bt., is in use for the display of the Art Treasures of the Coll. and for social purposes. The Fac. of Engin. provided with improved Senior Drawing Office accommodation.

New Posts. Commonwealth Fund Professorship of American Hist. Readerships in Physics and Phys. Chem. Hon. Lectureship in Ethnol.

EXTRA-MURAL WORK. The College does not undertake extra-mural work, but accommodation was provided in the Session 1930–31 for weekly meetings of five Univ. Tutorial Classes and of two Univ. Extension Courses. Upwards of 13,998 persons attended the various Public Lectures given in the late afternoon or evening.

RETIREMENTS. Prof. E. J. Garwood (Geol.), Prof. Robert Priebsch (German), Prof. A. F. Pollard (Const. Hist.), Prof. C. Spearman (Psychol.), Sir George Aston (Naval Hist.).

RESIGNATIONS. J. Haantjes (Dutch Lang. and Lit.); Florence M. Wood (Maths.), to be Principal of Southlands Tg. Coll.; Judge W. H. Hill (Law of Palestine, Cyprus, and Iraq); T. A. Stephenson (Zool.), to be Prof., Cape Town Univ.; E. G. Richardson (Physics), to be Lectr., Armstrong Coll., Newcastle-upon-Tyne; R. W. Haines (Anat.), to be Sr. Demr., Univ., Cape Town.

DEATHS. Dr. J. Bourne Benson, former Chairman of the College Committee; Emer. Prof. Rabbi Sir Hermann Gollancz; Mr. G. H. Hurst, Reader in Engl. Law; Dr. J. V. Elsden, former Lectr. in Geol.

IMPORTANT EVENTS. In Sept. 1930, opening by Emer. Prof. Sir John Rose Bradford, Vice-Chairman of the College Committee, of the new Exhibition Room, provided by Sir Joseph Duveen, Bt.; in November 1930, meeting of Anglo-German Academic Bureau in Great Hall, H.E. the German Ambassador

present; in January, 1931, Second Walter Seton Memorial Lecture, delivered by Prof. F. C. Burkitt on "St. Francis of Assisi and some of his Biographers"; in May, meeting of London Council for Social Service, address by Miss Margaret Bondfield; in July, luncheon to delegates to Internat. Congress on Hist. of Science.

Students. Full-time: total, 2051, including 244 graduates. Part-time: total, 1174, including 204 graduates.

DEGREES. B.A., 128; B.A. (Arch.), 11; B.Sc., 95; B.Sc. (Econ.), 8; B.Sc. (Eng.), 28; LL.B., 16; M.A., 11; M.Sc., 17; M.Sc. (Eng.), 3; LL.M., 6; Ph.D., 36; D.Sc., 5; LL.D., 1.

# UNIVERSITY OF LONDON, KING'S COLLEGE AND KING'S COLLEGE FOR WOMEN

CHAIRMAN OF THE DELEGACY-LORD BLANESBURGH, G.B.E., M.A., LL.D. Aberd.

VICE-CHAIRMAN-A. J. ALLEN, M.A. Ox.

TREASURER—Sir EDWARD TROUP, K.C.B., K.C.V.O., LL.D. Aberd.

PRINCIPAL—W. R. HALLIDAY, M.A. Ox., LL.D. Glas.

DEANS OF FACULTIES. See under "General Information"-Faculties.

SECRETARY-S. T. SHOVELTON, M.A. Ox.

TUTOR TO WOMEN STUDENTS-AGNES S. PAUL, M.A., B.D.

LIBRARIAN-R. HUTTON, M.A. Liv.

#### PROFESSORS, LECTURERS, ETC.

Anatomy, Descrip. and Surgical Blair, D. MacCallum, M.B., Ch.B. Glas.

Prof. (A. and Anthrop.). Davies, F., M.D., B.S. Reader. Compton, A., F.R.C.S.

Lectr. (Applied A.). lstone, R. J., M.D., C.M. Aberd., D.P.H., F.R.C.S. Gladstone,

Lectr. Coghill, Violet A. P., M.B., Ch.B. Wakeley, C. P. G., F.R.C.S. Lectr. 2 Demrs.

Anthropology, v. Anat.

Art, Ecclesiastical

Dearmer, Rev. P., D.D. Ox. Prof. Assyriology

Gadd, C. J., M.A. Ox. Hon. Lectr. Smith, S., M.A. Camb. Hon. Lectr.

Bibliography, v. English

Biology, v. Zool.

Botany and Plant Biology

Gates, R. Ruggles, M.A., LL.D. Mt. Allison, B.Sc. McG., Ph.D. Prof. Chic., F.R.S.

Schwartz, E. J., M.A., D.Sc. Lectr.

Latter, Margaret J., B.Sc., Ph.D. Asst. Lectr. Catcheside, D. G., M.Sc.

I Demr.

[Daniell Prof. Chemistry Smiles, S., O.B.E., D.Sc., F.R.S. Allmand, A. J., D.Sc. Liv., F.R.S.

Asst. Lectr.

Robson, W., Ph.D. Edin., D.Sc. (Bio-Chem.) Reader. Cremer, H. W.,

M.I.Chem.E. Senr. Lectr. Salmon, C. S., M.Sc. Bris. Lectr. McClelland, E. W., D.Sc. Belf., Ph.D. Durh., A.I.C. Ward, L. Singlehurst, B.Sc. Lectr.

Fairbourne, A., M.A. Ox., M.Sc. Manc. Hon. Lectr.

Asst. Lectrs.: Dolley, L. G. F., B.Sc., Ph.D.

Gregg, S. J., B.Sc., Ph.D. Roberts, K. C., M.Sc., Ph.D. 2 Demrs.

Classics, v. also History Thomson, J. A. K., M.A. Aberd., B.A. Ox. Prof. Knight, Clara M., D.Lit. Reader.

Hall, E. B., M.A. Senr. Lectr.	Routh, H. V., M.A. Camb., D.Lit.
Handford, S. A., M.A. Ox. Lectr.	(E. Lit.) Reader.
Bevan, E. R., O.B.E., M.A., D.Litt.	Harrison, G. B., M.A. Camb.,
Ox., LL.D. St. And.	Ph.D.
Lectr. (Hellenistic His-	(E. Lit., also Tutor to
tory and Literature).	Journalism Students)
Czecho-Slovak, v. Slav.	Reader.
Education	Ingram, E. Gwendolen, M.A.
Wilson, J. Dover, M.A., Litt.D.	(E. Philology) Senr. Lectr.
Camb. Prof.	Day, Mabel, M.A., D.Lit.
Titley, A. F., B.Sc. Brist., D.Phil.	(E. Philology) Lectr.
Ox. Sr. Lectr.	Isaacs, J., M.A. Ox.
Chaplyn, Marjorie A., M.A., Edin.,	(E. Lit.) Lectr.
D. de l'Univ. Paris Lectr.	Garmonsway, G. N., M.A. Camb.
Bell, Clarissa C., B.A. Lectr.	(E. Lit.) Lectr.
Ward, H., C.B.E., M.A. Ox.	Barrett, W. P., M.A., Ph.D. Camb.
Hon. Lectr.	Asst. Lectr.
Smith, H. T., B.A. Ox.	Mack, Frances M., B.A.
Asst. Lectr.	Asst. Lectr.
Williams, Emily M., B.A.	r Asst.
Asst. Lectr.	French
Twentyman, A. E., B.A.	Saurat, D., D. ès L. Paris Prof.
Tutor (Higher Degree Students).	Stone, Louise W., M.A.
, , ,	(Romance Philol.) Reader.
Engineering, Civil	Hughes, R. W., M.A. Ox., M.A.
Jameson, A. H., M.Sc. Manc., M.Inst.C.E. Prof.	Syd., Dip. d'E.S. Paris, D.Lit.
M.Inst.C.E. Prof. Lobban, C. H., D.Sc. (Eng.) Glas.	Lectr.
Reader.	Jones, R. A., M.A. Lectr.
White, C. M., B.Sc. (Eng.) Lectr.	Vigne, J. Lectr.
	McKechnie, Margaret M. McL.,
Engineering, Electrical	M.A. Glas., L. ès L.
Catterson-Smith, J. K., M.I.E.E.,	Asst. Lectr.
M.Eng. Liv. Siemens Prof.	6 Assts.
Wilson, Ernest, M.I.C.E., M.I.E.E.	
Special Lectr. Robertson, F. Steell, M.I.E.E.	Geography
	The Profs. of Botany, Geol., Civil
Sr. Lectr. Clarke, H. M., B.Sc. Lectr.	Engin., Imperial Hist.,
Ciarke, 11. 14., D.5c. Doca.	Central Europ. Hist., Zool. (in
Engineering, Mechanical	conjunction with staff of Lon-
Cook, Gilbert, D.Sc. Manc.,	don School of Economics).
M.I.M.E. Prof.	Wood, H. J., B.Sc. (Historical Geog.) Asst. Lectr.
Davies, S. J., M.Sc. Durh., Ph.D.	(Historical Geog.) Asst. Lecti.
Reader.	Geology
Giffen, E., M.Sc. Belf. Lectr.	Gordon, W. T., M.A. Camb., M.A.,
English	D.Sc. Edin., F.G.S. Prof.
Reed, A. W., M.A., D.Lit. Prof.	Wells, A. K., D.Sc., F.G.S. Reader.
Pollard, A. W., C.B., M.A. Ox.,	Wooldridge, S. W., D.Sc., F.G.S.
D.Litt. Durh.	Lectr
	ı Demr.

Materia Medica and Pharmaco-German Atkins, H. G., M.A., D.Lit. Prof. Inchley, O., M.A., M.D. Camb. Rose, W., M.A. Birm., Ph.D. Lectr. Reader. Mathematics Norman, F., M.A. Reader. Prof. White, S. A. F., M.A. Ox. Lectr. Haltenhoff, A. G. Jolliffe, A. E., M.A. Ox. Prof. Stuart, Hannah S. M., B.A., Ph.D. Dale, J. B., M.A. Camb., Asst. Lectr. Asst. Prof. I Asst. Shovelton, S. T., M.A. Ox. Lectr. Henderson, J., M.A., B.Sc. Edin., Greek, Modern, and Byzantine [Koraes Prof. Ph.D. Marshall, F. H., M.A. Camb. Combridge, J. T., M.A. Camb., M.Sc. Hebrew Edwards, B. A., M.Sc. Wales. Hollis, Rev. F. J., D.D. Lectr. Lectr. Davies, E. T., M.Sc. Wales, Ph.D. Histology, v. Physiol. Asst. Lectr. Rome History, v. also Classics, Greek, Slav. Military Science Maurice, Maj.-Gen. Sir Frederick Hearnshaw, F. J. C., M.A. Camb., B., K.C.M.G., C.B., LL.D. LL.D. Dub. Prof. Newton, A. P., B.Sc., M.A., D.Lit., Prof. Camb., D.Lit. F.S.A. Palæography, v. Hist. Rhodes Prof. of Imperial H. Pharmacology, v. Mat. Med. Warmington, E. H., M.A. Camb. (Ancient H.) Reader. Philology, v. English, French, Cronne, H. A., M.A. Belf. and Ox. Slavonic (Mediæval H.) Lectr. Philosophy, v. also Psych. Driver, C. H., M.A. Hallett, H. F., M.A., D.Litt. Edin. (Const. Hist.) Lectr. Prof. Page, Frances M., M.A., Ph.D. Asst. Lectr. Prof. of the Philosophy Jenkins, Rev. C., M.A., D.D. Ox., of Religion. F.S.A. Oakeley, Hilda D., M.A. McG., Prof. (Eccl. H.) and Hon. Lectr. D.Lit. Reader (Greek andPhonetics, v. English Latin Palæog.). Jenkinson, Hilary, M.A. Camb., **Physics** F.S.A. Appleton, E. V., M.A. Camb., (Diplomatic and English D.Sc., F.R.S. Archives) Reader. Wheatstone Prof. Steed, H. Wickham, LL.D. Strasb. Richardson, O. W., M.A. Camb., (Central Europ. Hist.) Lectr. D.Sc., F.R.S. I Asst. Yarrow Research Prof. Italian (Royal Society's). Vincent, E. R. P., M.A. Ox. Lectr. Flint, H. T., D.Sc. Birm., D.Sc., Reader. Ph.D. Journalism, v. English Worsnop, B. L., B.Sc., Ph.D. Law, v. p. 186 Senr. Lectr.

Williams, W. E., M.Sc. Manc.	Raffi, Arshak
Lectr.	(Russian Lang.) Lectr.
Johnson, R. C., M.A. Ox., Ph.D., D.Sc. Lectr.	Mirsky, D. S., of Petrograd and Kharkov Univs.
Fisher, Joseph W., B.Sc., Ph.D.	(Russian Lit.) Lectr.
Asst. Lectr.	Turin, S. P.
3 Demrs.	(Russian Econ.) Hon. Lectr.
Physiology	Borowy, W.
McDowall, R. J. S., M.B. Edin.,	(Polish Lang. & Lit.) Lectr.
D.Sc., Ch.B., F.R.C.P. (Edin.)	Wharton, L., M.A. Ox. (Polish Lang. and Lit.)
Prof.	Hon. Lectr.
Robson, Wm., Ph.D. Edin., D.Sc.	Lavrin, Janko
(Bio-Chem.) Reader. Hewitt, J. A., Ph.D. St. And.,	(Slavonic Lit.) Hon. Lectr.
D.Sc., A.I.C. Lectr.	Seton-Watson, R. W., D.Litt. Ox.,
Thompson, J. H., B.Sc. Lectr.	Ph.D. Prague and Zag.
Hon. Lectrs.:	(Central European His-
Negus, V. E., M.B., M.S., Ch.M.,	tory) Masaryk Prof.
F.R.C.S. (Laryngology).	Subotić, D., Ph.D. Munich, B.Litt.
Pickering, J. W., D.Sc. (Hæmato-	Ox. (Serbo - Croatian Lang.
logy).	and Lit.) Reader.
2 Demrs.	Hanak, Jan.
Polish, v. Slav.	(Czecho-Slovak Lang. and
Portuguese [Camoens Prof.	Lit.) Lectr.
Prestage, E., M.A., D.Litt. Ox.	Tchitchovsky, T.
Bentley, W. A. Lectr.	(Bulgarian Lang. and
Psychology	Lit.) Hon. Lectr.
Aveling, F. A. P., M.C., D.D.	
Rome, Ph.D. Louv., D.Sc.,	Spanish Studies
D.Lit. Prof.	Pastor, A. R., B.Litt. Ox., D.Phil.
Hadfield, J. A., M.A. Ox., M.B.,	Madrid Cervantes Prof.
Ch.B. Edin. Lectr.	Villasante, J. M., LL.D. Madrid Sr. Lectr.
Bartlett, R. J., M.Sc., A.R.C.S.	Perry, Janet, B.A. N.U.I., M.A.
Lectr.	Lectr.
I Hon. Demr.	Carey, J. R., B.A. Lectr.
Romance, v. French	Jan 2, 3, 4, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
Russian, v. Slav.	Theology, v. p. 167
Serbian, v. Slav.	
Slavonic and East European	Zoology and Animal Biology
Studies	Mackinnon, Doris L., D.Sc. Aberd.
Pares, Sir Bernard, K.B.E., M.A.	Prof.
Camb.	Huxley, J. S., M.A. Ox. Hon. Lectr.
Prof. (Russian Hist.), Dir.	Tribe, Margaret, D.Sc. Lectr.
of the Dept. Jopson, N. B., B.A. Camb.	Dawes, B., A.R.C.S., D.I.C.
(Comparative S. Philo-	Asst. Lectr.
logy) Reader.	2 Demrs.
011	

#### GENERAL INFORMATION

Address-Strand, W.C.2.

Founded by Royal Charter in 1829 for "instruction in the various branches of Literature and Science and the doctrines and duties of Christianity," King's College consisted at first of a School and Departments of General Literature, Science, and Medicine, to which were added successively Engineering, Theological, and Oriental Depts. The Hospital was built in 1839; the Evening Classes were started in 1856, and a Women's Dept. in 1881. In 1910 the College School became a separate Corporation, the Hospl. and Advanced Med. School were made independent, the other Depts. (except the Theological) doing work of University standard were incorporated in the Univ. of London. while the Council remained the governing body of the Theol. Dept., which became a School of the Univ. In 1915 the Arts and Science Departments of King's College for Women, previously housed in South Kensington, were transferred to the buildings of King's College, and the Household and Social Science Department to new buildings on Campden Hill. The Dept. of Household and Social Science became a separate instn. in 1928 under the title of King's Coll. of Household and Social Science, v. infra. The School of Slavonic Studies and the Slavonic Library have now been transferred to 40 Torrington Square, W.C.r.

LIBRARY, 80,000 vols., including the Marsden (Philol. and Oriental), Skeat and Furnivall (English), Wheatstone (Electricity, etc.), Slavonic, and Byzantine and Modern Greek collections.

LABORATORIES AND MUSEUMS. Anat. (Hughes Collection), Comp. Anat., Biol., Bot., Chem., Engin., Geol. and Mineral., Mat. Med., Metall., Pharmacol., Physics, Physiol. (including Bio-Chem. and Histol.), Psych., Zool.

FACULTIES. Arts, Laws, Natural Science, Medical Science, Engineering, Theology. Deans: Prof. J. A. K. Thomson (Classics), Dr. W. N. Hibbert (Jurisp.), Prof. E. V. Appleton (Physics), Prof. D. M. Blair (Anat.), Prof. A. H. Jameson (Engin.), Rev. R. Hanson, M.A., B.D. (Theol.).

Evening Class Department (classes in connexion with faculties of Theology,

Arts, and Law). Dean, Prof. F. J. C. Hearnshaw (Hist.).

Degree Courses in Arts, Laws, Science, Engineering, and Theology. Prelim. and Interm. courses in Medicine, and courses for the First and Second Examns. for Dental Degrees. Day Training College under the Board of Education. Dept. for training secondary Teachers (men and women).

Engineering students receive preliminary workshop training in their first year. Facilities are provided for spending half of each summer vacation in engineering works. Those taking 4-years' course spend part of each year

(18 months in all) in practical training.

College Diploma course in Engineering, ordinarily 3 yrs. A one-year post-graduate course in Chem. Eng. is provided, dealing with the general principles of Applied Chem. as a preparation for industrial posts. The Associateship, open to men and women who have graduated after a three-years' course and have also attended a prescribed course in Divinity. Certificates in Palæography, Italian, Hebrew, Syriac, Spanish, Portuguese, Russian, Czecho-Slovak, Serbo-Croat, Polish, Applied Psychol., and Chem. Eng.

ADVANCED STUDY. Special facilities in English (including Bibliography), History (especially Mediæval, Colonial, Eastern Europe, and Ancient), Slavonic, Spanish, Portuguese, Modern Greek, Education, and several Depts. of Science.

FEES. Tuition per Session, including fees for games, library, and union society: Arts, 30 to 37 gs.; Laws, 20 to 26 gs.; Science, 35 to 50 gs.; Med., 35 to 40 gs.; Engin., 48 to 60 gs.

Scholarships for Graduates. In Arts 3, aggregate value £250 p.a.; Science 6, ag. value £640 p.a.

RESIDENCE. Two hostels for men (one Theol, for 72 men and one general for 80 men), and one for 58 women (these Hostels are recognized by the Board of Education).

A REGISTER OF FORMER STUDENTS is maintained, in which changes of address are recorded without charge.

Publications. Separate Syllabus for each Faculty post free. Calendar, 4s. 6d. post free; Slavonic Review, 6s. per copy or 16s. 6d. post free p.a. for 3 copies published terminally; K.C. Review.

THE YEAR 1930-31

Benefactions. The late Prof. W. D. Halliburton, reversionary bequest of fro,000 for physiological science. Thomas Wall Trustees, a grant for a Thomas Wall Readership in Comparative Education. Lady Gollancz, a bust in bronze of the late Mrs. Frida Mond and two portraits of the late Prof. Sir Israel Gollancz. Many other gifts of books, apparatus, etc.

NEW BUILDINGS. A new Dept. of Anatomy, occupying the N.W. end of the College building, is under construction; a permanent Pavilion completing the War Memorial Athletic Ground at Mitcham.

NEW Posts. A full-time Chair of Philos. in place of the existing Readership; a Thomas Wall Readership in Comparative Education.

VISITS OF TEACHERS. Prof. E. V. Appleton represented the British National Committee for Radio-telegraphy at the Copenhagen Conference of the Union Radio Scientifique Internationale. Prof. A. P. Newton was appointed British Delegate to the 21st Session of the Institut Colonial International in Paris. Prof. A. Pastor lectured in Edinburgh, Nottingham, and Oxford. Prof. J. A. K. Thomson lectured at the Bibliothek Warburg in Hamburg. Dr. S. J. Davies gave lectures at the Technische Hochschule, Charlottenburg, and also in Karlsruhe and Vienna. Mr. J. S. Huxley undertook an extensive lecture-tour of the U.S.A. Mr. A. E. Twentyman acted as Visiting Professor at two American Universities.

Among visitors who lectured in the College were: Dr. A. D. Lindsay (Master of Balliol Coll., Oxford); Prof. R. M. Dawkins (Oxford); Dr. V. T. Harlow (Oxford); Prof. J. Barcroft (Cambridge); Mr. Steven Runciman (Cambridge); Prof. H. J. W. Tillyard (Cardiff); Prof. W. J. Dilling (Liverpool); Prof. Karl S. Lashley (Chicago); Don Federico de Onís (Columbia); M. Mario Roques (Paris); Prof. František Bednář (Prague); Prof. E. Brunner (Zurich); M. Cattaui (Secretary to the Egyptian Legation); and M. J. R. Bloch.

DEATH. Professor H. Wildon Carr (Philosophy).

RETIREMENTS. Dr. Hilda D. Oakeley (Philosophy); Mr. F. W. Walton (Librarian).

STUDENTS. Full-time day students working for a degree or diploma (including Theology): total, 1677, including 260 graduates.

Part-time: total, 1399, including 94 graduates.

DEGREES OBTAINED. B.A., 135; B.Sc., 57; B.Sc. (Eng.), 15; LL.B., 12; B.D., 5; Diplomas, 181.

Higher Degrees: M.A., 15; Ph.D. (Arts), 5; D.Lit., 1; M.Sc., 5; Ph.D. (Science), 10; D.Sc., 1; M.Sc. (Eng.), 2; LL.D., 1; D.D., 1.

# SCHOOLS OF THE UNIVERSITY

# IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

VISITOR-H.M. THE KING.

CHAIRMAN OF THE GOVERNING BODY—Rt. Hon. LORD BUCKMASTER, P.C., G.C.V.O.

RECTOR—HENRY THOMAS TIZARD, C.B., M.A. Ox., F.R.S.

SECRETARY—A. Gow, M.A. Camb., B.Sc.

Assistant Secretary, Secretary to the Delegacy, and Registrar—G. C. Lowry, M.A. Camb.

# PROFESSORS, LECTURERS, ETC.

Aeronautics

Bairstow, L., C.B.E., A.R.C.S., F.R.S. Prof. (Aviation).

Walker, Sir Gilbert T., C.S.I., M.A., Sc.D., Ph.D., F.R.S. Prof. (Meteorol.).

Hill, F. T., F.R.Ae.S., M.I.Ae.E. Asst. Prof. (Design).

Lecturers:

Rowe, A. P., B.Sc., A.R.C.S., D.I.C. (Navign. and Instrs.). . . . . (Strength of Structs.). Moss, H., D.Sc., A.R.C.S., D.I.C.

(Engine Design).
Stern, W. J., B.Sc., A.R.C.S.,
D.I.C. (Engine Design).
2 Demrs.

Astrophysics

Fowler, A., A.R.C.S., D.Sc., F.R.S. Yarrow Research Prof. Dingle, H., B.Sc., A.R.C.S.

Asst. Prof.

Bio-Chemistry Chibnall, A. C., M.A., D.I.C., Ph.D. Asst. Prof.

Buston, H. W., Ph.D., D.I.C. Lectr.

Biology, v. also Bot., Zool.
Tabor, R. J., B.Sc. Reader.
Paine, S. G., D.Sc. Reader.

Lecturers:

Hewer, H. R., A.R.C.S., M.Sc., D.I.C. (Zool.).

Howarth, F., B.Sc., A.R.C.S. Henderson, F. Y., M.A., D.Sc.

Ashby, E., M.Sc., D.I.C.

Richards, O. W., B.A. (Entomol.)
Pratt, Miss C. A., M.A., Ph.D.,
D.I.C. Asst. Lectr.
6 Demrs.

Botany
Blackman, V. H., M.A., Sc.D.
Camb., F.R.S.

Prof. (Plant Physiol. and Path.), Dir. Biol. Labs.

Brown, W., M.A., D.Sc. (Plant Path.) Prof. 4 Research Plant Physiologists.

Chemical Technology

Bone, W. A., D.Sc. Manc., Ph.D. Heid., F.R.S. Prof. ..... (Chem. Eng.) Prof.

Finch, G. I., M.B.E., Dip. T.C. Zürich

(Electro-Chem. and Electro-therm.) Reader.

Himus, G. W., B.Sc., A.R.C.S., D.I.C. (Refr. Mat. & Silicates) Lectr.

Hancock, W. C., B.A. Camb. Readers: (Chem. Eng.) Lectr. Mallett, E., D.Sc. (Eng.), M.I.E.E. Ure, S. G. M., M.A., B.Sc. Glas. Rushton, A., M.Sc. (Tech.) Manc. Lecturers: Outridge, L. E., B.Sc. Asst. Lectr. Sims, J. W. Chemistry Hopkin, D. W. Baker, H. Brereton, C.B.E., M.A., Taylor, E. O., B.Sc., D.I.C. D.Sc. Ox., LL.D. Aber.. Urwin, C. R., A.C.G.I. F.R.S. Prof. I Asst. Lectr., 6 Demrs. Thorpe, J. F., C.B.E., D.Sc. Engineering, Mechanical, andManc., Ph.D. Heid., F.R.S. Motive Power (Org. Chem.) Prof. Lander, C. H., C.B.E., D.Sc., Philip, J. C., O.B.E., M.A., D.Sc. M.Inst.C.E., M.I.Mech.E. Aberd., Ph.D. Gött., F.R.S. Prof. (Phys. Chem.) Prof. Witchell, E. F. D., B.Sc., A.C.G.I., Whiteley, Martha A., O.B.E., M.I.Mech.E. Prof. D.Sc., A.R.C.S. Asst. Prof. Asst. Professors: Lecturers: Cruickshank, A., M.I.Mech.E. Harwood, H. F., M.Sc. Manc., Howard, J. V., D.Sc. Ph.D. Heid. Smith, S. L., D.Sc., A.C.G.I. Eldridge, A. A., B.Sc. Lecturers: Sugden, J. N., Ph.D., D.I.C. Lewitt, E. H., B.Sc. (Eng.). Ellingham, H. T., Ph.D., A.R.C.S. Cawley, G. M. Bull, P. C., D.S.O., A.R.C.S. Dyson, F., B.Sc., A.C.G.I. Kon, G. A. R., M.A., D.Sc., Collins, W., B.Sc., A.C.G.I. D.I.C. Glaister, E., B.Sc., D.I.C. Pollard, A. G., B.Sc., A.R.C.S. 2 Asst. Lectrs., 3 Demrs. Riley, H. L., B.Sc., D.I.C. Farmer, E. H., D.Sc., A.R.C.S. Forestry, v. Botany 6 Asst. Lectrs., 2 Demrs. Fuel, v. Chemical Technology Engineering, Chemical, v. Chem. Geology, Mining Geol., and Oil Tech. Tech.Engineering, Civil, and Surveying Boswell, P. G. H., O.B.E., D.Sc., Dixon, S. M., M.A., M.Sc., B.A.I. D.I.C., M.Inst.M.M., F.G.S. Dub. Prof. Prof. Clements, R. G. H., M.C., Cullis, C. G., D.Sc. M.Inst.C.E. (Mining Geol.) Prof. (Highway Engin.) Prof. Davies, A. M., D.Sc., A.R.C.S. Purser, J., B.A., B.A.I. Dub., (Palæont.) Reader. M.Sc. Birm. Asst. Prof. Illing, V. C., M.A. Camb. Rice-Oxley, K., A.C.G.I. Asst. Prof. (Oil Tech.) Reader. Lecturers: Brammall, A., M.Sc., Ph.D., D.I.C. Shearer, W. V., B.Sc., M.Inst.C.E. (Petrology) Lectr. Manton, B. G., B.Sc. Wolf, A. Lectr. 2 Asst. Lectrs., I Demr. Jones, W. R., D.Sc., D.I.C. Lectr. Engineering, Electrical Slater, G., D.Sc., D.I.C. Fortescue, C. L., O.B.E., M.A. Asst. Lectr.

Prof.

Camb., M.I.E.E.

5 Demrs.

F. W., A.R.S.M., Mathematics and Mechanics Armstrong, Chapman, S., M.A. Camb., D.Sc. F.G.S. Vict., F.R.S. Chief Prof. Asst. Lectrs.: Levy, H., D.Sc. Ox., M.A., B.Sc. Edin. Prof. Dinsdale, J. R., B.Sc. Reader. Bickley, W. G., M.Sc. Oil, v. Geol. Temple, G. F. J., Ph.D. Reader. Optics, Technical Odell, W. L., A.R.C.S. Asst. Prof. Lecturers: F.Inst.P. Hodgson, T., B.A. Ox., B.Sc. Milner, L. G., A.R.C.S. Dickson, T. W., M.C., B.A. Ox. Harvey, J., B.Sc., A.R.C.S. D.I.C. Kebby, C. H., M.Sc., A.R.C.S. Reeve, W. Price, A. T., B.Sc. I Asst. Lectr. 5 Asst. Lectrs, 4 Demrs. Metallurgy Carpenter, Sir Harold, M.A. Ox., A.R.S.M., Ph.D. Leip., M.Inst.M.M., F.R.S. Prof. F.R.S. A.R.S.M., Merrett, W. H., Rankine, A. O. M.Inst.M.M., F.I.C. Dingle, H., B.Sc., A.R.C.S. Asst. Prof. Chapple, H. M., A.R.S.M. Lectr. Dannatt, C. W., A.R.S.M., D.I.C. Lectr. Lecturers: Fisher, M. S., Ph.D. Lectr. I Asst. Lectr.; I Demr. Meteorology, v. Aero. Mineralogy, v. Geol. Mining, v. also Geol. Truscott, S. A.R.S.M.. J., M.Inst.M.M. Prof. Holman, B. W., O.B.E., A.R.S.M., M.Inst.M.M. Reader. Sillick, W. E. G., A.R.C.S., D.I.C. Asst. Prof. Lecturers: Webb, A. H., M.Inst.M.M. Wrangham, D. A., B.Sc.

# Tweed, W. S., D.I C.

Pollard, A. F. C., A.R.C.S.,

> Prof. (O.E. (Mech.) and Instrument Design).

Martin, L. C., D.Sc., A.R.C.S., Reader.

Wright, W. D., Ph.D., D.I.C. Lectr.

Petrology, v. Geol.

Physics, v. also Astrophysics and Techn. Optics

Thomson, G. P., B.A. Camb., Prof. Prof.

Reader.

Gregory, H. S., Ph.D., D.I.C. Reader.

Brinkworth, H., M.Sc., A.R.C.S. Green, S. E., A.R.C.S. Archer, C. T., M.Sc., A.R.C.S. Ensor, C. R., B.Sc., A.R.C.S. Moon, P. B., B.A. Asst. Lectr. 2 Asst. Lectrs., 9 Demrs.

Refractory Materials and Silicates, v. Chemical Tech.

Woods and Fibres, v. Botany Zoology, v. also Biol. Prof. MacBride, E. W., M.A. Camb., LL.D. McG., D.Sc., F.R.S. Munro, J. W., D.Sc., M.A.

(Entomol.) Prof.

#### GENERAL INFORMATION

Address-Prince Consort Road, S. Kensington, S.W.7. Telegrams—Scientist, Southkens, London.

Founded by Royal Charter in 1907 for the purpose of giving the highest specialized instruction and providing the fullest equipment for the most

advanced training and research in various branches of Science, especially in its application to Industry, the Imperial College includes as integral parts the following Associated Colleges:

The Royal College of Science. The Royal School of Mines.

The City and Guilds (Engineering) College.

The departments and (in brackets) sub-departments are: Aeronautics (Aerodynamics, Meteorology), Biology (Botany, Bio-Chemistry, Plant Physiology and Pathology, Technology of Woods and Fibres), Chemical Technology (Chemical Engineering, and Fuel and Refractory Materials), Chemistry (Inorganic, Organic, and Physical), Engineering—Civil and Surveying, Electrical, Mechanical, and Motive Power, Geology (Economic Mineralogy, Mining Geology, Technology of Oil), Mathematics and Mechanics, Metallurgy, Mining (Mining Geology, Mining Surveying), Physics (Astrophysics, Technical Optics, Geophysics), Zoology (Entomology).

The total staff exceeds 200. The College is a School of the University in Science and Engineering. Students who are registered as candidates for one of the Associateships, and who have matriculated at the Univ. of London by examn. or exemption, are eligible for the B.Sc. (Special) Degree of the Univ., in the Facs. of Sci. or Eng., on the examns. for the relative Associateship, if the Univ.'s regns. are complied with. This arrangement is subject to review in 1935. The buildings occupy about 8 acres and cost with equipment over £1,000,000.

The courses of study are designed for students of Univ. standard whose vocations will be concerned with the scientific aspects of industries.

LIBRARIES, ETC. The Library of the Science Museum is available for the use of Students, and each Dept. is provided with a special Library, RESEARCH LABORATORIES, and full facilities for advanced study.

ADMISSION. The conditions of admission are as under, but the College reserves power to admit in special cases candidates whose qualifications do not in every respect coincide with those prescribed, but whose previous training fits them to take full advantage of the course proposed; the prescribed qualifications give no right to admission, but will be considered with others of which the candidate may give evidence. (i.) R.C.S. and R.S.M. A candidate for admission must be as a rule not less than 17 yrs. of age. For admission to 1st yr. Assoc. courses an Entrance examn. in Maths. and Mechanics, Chem., Physics, Engl., and French or German must be passed, unless equivalent examns, have been passed elsewhere. (The Matricn, examn, of the Univ. is considered equivalent provided the student has passed in "More Advanced Maths." and "Elem. Mechanics," and in the other subjects prescribed for the Entrance examn.) Candidates for admission to a 2nd yr, must pass the College Entrance examn. in more advanced Maths., Mechanics, Chem., and Physics, unless equivalent examns. have been passed elsewhere. For admission to a ard yr. candidates must have reached a standard correspondingly higher. (ii.) City and Guilds. A candidate desiring to enter for the 1st yr. of the Assoc'ship course must be at least 16 yrs. of age and must pass entrance examn. in Maths. and Mechanics, Geom. Drawing, Phys., Chem., Engl., and French or German, unless he has passed the Matrico. examn. of the Univ., taking certain specified subjects, including More Advanced Maths. For admission to the 2nd yr. course candidates must take the easier and more advanced papers, Geom. and Mach. Drawing, and practical Chem. in the College examn., or they must have passed the Interm. B.Sc. (Eng.) in the Univ. in Maths., Pure and Applied, Heat, Elec. and Magn., Eng., Drawing and Design, and Chem. Candidates for admission to advanced or research work in the R.C.S..

R.S.M., or C. and G. must satisfy the Coll. authorities as to their previous training.

DIPLOMA AND OTHER COURSES. Assoc'ship of each of the 3 associated Colls., 3 or 4 yrs.; specially arranged courses in Advanced Sci. or Techn., I or more yrs., leading to the Diploma of the Imperial Coll.; short courses dealing with special subjects for graduates or persons engaged in scientific industrial pursuits; occasional courses to suit individual needs.

FEES. Entrance,  $f_2$ ; Tuition, per session, for full-time Associateship courses of study,  $f_{02}$ :10s. (including Union fees); for less than full-time courses, pro rata; for advanced study,  $f_{02}$ :10s., excepting post-graduate courses in Chemical Technol., Foods and Drugs, Agric. Chemistry, Geophysics, and Technical Optics, which are each  $f_{22}$ :10s.; for Research Work the fee is  $f_{22}$ :10s. per session (including Union fees), but an additional charge may be made for expensive apparatus or chemicals. Graduates from other Institutions taking the 4th year Assoc'ship course in Botany will be charged fees at the Research rate of  $f_{22}$ :10s.

SCHOLARSHIPS for post-grad. work: Beit Fellowships for Research, v. Appendix XXIII. 15 and 17; £300 Plimmer Fellowship in Pathology; £100 in Botany; and many others (v. Calendar).

Affiliation, etc. The Univ. of Sheffield is associated with the Coll. for Advanced Studies in the Metallurgy of Iron and Steel. Students of Huddersfield Technical Coll. may be admitted, subject to certain conditions, without examn.

Publications. Annual Report; Calendar, with list of Associates, pubd. by the Coll.

## THE YEAR 1930-31

Benefactions. Legacy of £25,000 from the late Sir Otto Beit, Bart.

NEW BUILDINGS. The new building in Prince Consort Road was completed during the year, and the portion containing Hostel accommodation for 52 additional residents was taken into use in January 1931. The portions set aside for the Administrative Office, the Union and the Bookstall were occupied at the end of the year, leaving about two-fifths of the building available for future developments.

New Departments and Posts. A new sub-dept. of Geophysics has been founded within the Physics Dept., in close co-operation with the Geology Dept.

RETIREMENTS. Prof. W. E. Dalby (Mech. Eng.); Prof. A. E. Conrady (Optical Design); W. E. Stockings (Chem. Technol.).

DEATHS. Prof. Percy Groom (Technol. of Woods and Fibres); Prof. J. W. Hinchley (Chem. Eng.); V. C. Richmond (Aeronautics); E. O. Courtman (Metall.).

DIPLOMAS GRANTED. A.R.C.S., 74; A.R.S.M., 31; A.C.G.I., 86; D.I.C., 65. Total, 256.

Students. Full-time: total, 978, including 230 graduates. Part-time: total, 124, including 63 graduates. In addition: 78 Research Assistants, and 35 Intercollegiate students.

DEGREES OBTAINED. B.Sc. in Science, 84; in Engineering, 88; higher degrees in Science: Ph.D., 26; M.Sc., 15; D.Sc., 13; higher degrees in Engineering: Ph.D., 3; M.Sc., 11; D.Sc., 1.

## EAST LONDON COLLEGE

CHAIRMAN OF THE COLLEGE COUNCIL—Sir LYNDEN MACASSEY, K.B.E., K.C.

PRINCIPAL-J. L. S. HATTON, M.A. Ox.

REGISTRAR-E. J. WIGNALL.

## PROFESSORS, LECTURERS, ETC.

Aeronautical Engineering
Piercy, N. A. V., D.Sc. (Eng.)
Lectr.
Botany
[Prof.
Fritsch F F Ph D Mün D Sc.

Fritsch, F. E., Ph.D. Mün., D.Sc. Haines, F. M., B.Sc., Ph.D. Lectr. Carter, Nellie, D.Sc. Birm. Lectr.

Chemistry

Partington, J. R., M.B.E., D.Sc. Manc. Prof. Drew, H. D. K., Ph.D., D.Sc.

Reader.

Lectrs.:
Jones, D. C., D.Sc. Wales, Ph.D.
Johns Hopkins
Patterson, W. H., D.Sc. Manc.
Bury, F. W., M.Sc. Manc.

Classics

Hatt, H. H., Ph.D.

Earp, F. R., M.A. Camb. Prof.
Mozley, J. H., M.A. Camb. Lectr.
Engineering, Civil and Mechanical, v. also Aero. Eng.
Lamb, E. H., D.S.C., M.Sc. Manc.

Prof. Higgins, A. L., D.Sc. Belf. (Civil E.) Lectr. Wedgwood, G. A., M.Sc. Belf.

(Mech. E.) Lectr. Brendel, F. C. L., B.Sc. Lectr. 2 Assts.

Engineering, Electrical [Prof. MacGregor-Morris, J. T., M.I.E.E.

Lectrs.: John, W. J., B.Sc., D.I.C. Stoner, C. R., B.Sc.

English Lang. and Lit.
Nicoll, J. R. Allardyce, M.A. Glas.
Prof.

Lectrs.:

Williams, O. T., M.A. Wales. Budd, F. E., B.A., Ph.D.

French Lang. and Lit.

Dechamps, J., D. ès L. & Ph.
Liége Prof.
Rozelaar, L. A., M.A. Lectr.
Halket, Eliz. C., M.A. Lectr.
Jullin, Dora, L. ès L. Asst.

Geography and Geology Smith, H. G., B.Sc. Reader. Tunstall, Bessie M., B.A. Lectr.

German Lang. and Lit.

McClean, R. J., M.A., Ph.D.

König. Lectr.

History, Modern
Clarke, F., M.A. Ox. Prof.
Chew, Helena M., M.A., Ph.D.
Lond. Lectr.

Mathematics, Pure and Applied Le Beau, G. S., M.A. Ox. Lectr.\* The Principal

Reader in Geometry. Churchill, W. F. S., M.A. Ox. (Applied M.) Asst. Prof.

<sup>\*</sup> Head of Department.

#### LONDON

Lectrs.: Cooper, F. T., B.Sc. Soal, S. G., M.A. Green, S. L., M.Sc.

Physics Robinson, H. R., Ph.D. Camb., D.Sc. Manc., F.R.S. Prof.

Lectrs.: Ferguson, A., M.A. Wales, D.Sc.

Calthrop, J. E., M.A. Camb., M.Sc. Andrews, J. P., D.Sc. Irons, E. J., B.Sc., Ph.D.

Spanish Barragán, J. V. Lectr.

Zoology Mudge, G. P., A.R.C.S.

Head of Dept. Grove, A. J., M.A., D.Sc. Lectr.

#### GENERAL INFORMATION

Address-Mile End Rd., E.I.

Established 1892. Governed by a Council which includes the Master and Clerk of the Drapers' Co., and representatives of the L.C.C., the Univ., and the Staff. A School of the Univ. in Arts, Science, and Engin. Students proposing to take the Medical course at the London Hospital are offered special facilities for carrying on their studies for the Prelim. Med. Examn. Special Research Laboratories in Physics, Chem., Elec. Engin. Degree courses in Arts, Science, Engin. (including Aeronautical Engin.), and Med. Fee per session, £22: 10s. Hall of Residence for men students at South Woodford, and Hall of Residence for women at Whipps Cross; residence and board from 30s. a week. Calendar, 1s. post free. College Magazine, Old Students' Association.

## THE YEAR 1930-31

STUDENTS. Full-time: total, 406, including 37 graduates. Part-time: total, 71, including 51 graduates.

DEGREES OBTAINED. B.A., 22; B.Sc., 44; B.Sc. (Eng.), 20; Ph.D., 8; M.A., 3; M.Sc., 6; D.Sc., 2.

## BIRKBECK COLLEGE

PATRONS-THEIR MAJESTIES THE KING AND QUEEN.

PRESIDENT OF THE COLLEGE—THE VISCOUNT BURNHAM, Bart., G.C.M.G., C.H., T.D., LL.D. Camb., McGill, and W. Aust. D.Litt. Durh., M.A. Ox., J.P.

CHAIRMAN OF THE GOVERNORS-W. L. HICHENS.

PRINCIPAL—GEORGE SENTER, D.Sc., Ph.D., F.I.C.

SECRETARY-G. F. TROUP HORNE, B.A.

LIBRARIAN-M. CLIVE HILDYARD, B.A., Ph.D.

## PROFESSORS, LECTURERS, ETC.

Botany Gwynne-Vaughan, Dame Helen, G.B.E., LL.D. Glas., D.Sc., F.L.S. Prof.\* Barnes, B. F., B.Sc., Ph.D., F.L.S. Lectr. Duerden. H., B.Sc.. Ph.D., A.R.C.S. Lectr. Special Lectrs. : Bolas, B. D., M.Sc. Taylor, G., B.Sc.

Chemistry
The Principal

Barrow, F., M.Sc. Birm., Ph.D.
Stras.

Sugden, S., D.Sc., A.R.C.S., A.I.C.
Reader.

Myddleton, W. W., D.Sc. Belf.
Lectr.
Thorneycroft, F. J., B.Sc. Birm.,
M.Sc.

Demrs.

Classics and Ancient History
Wright, F. A., M.A. Camb. Prof.\*

Sinclair, T. A., M.A. Camb.
Reader.
Gould, H. E., M.A. Lectr.†
Langsford, K. S., B.A. Ox., B.A.
Lectr.†

Economics

Robinson, Marjorie E. (Mrs.), M.A. Camb. Lectr.†

English Lang. and Lit. [Lectr.\* Lobban, J. H., M.A. Aberd. Daunt, B. Marjorie

Lectr. (E. Lang.).
Potter, S. M., B.A. Ox. Lectr.†

French Lang. and Lit. [Prof.\* Tanquerey, F. J., B. ès Sc. Rennes, D. ès L. Paris, Off. de l'A. Fr. Wilson, Claudine I., M.A. Aberd., Ph.D. Reader.

Gould, Marjorie, B.A. Lectr.†
Aubry, Alice, L. ès L.

Clermont-Ferrand Lectr.†

Geography
Taylor, Eva G. R., D.Sc. Prof.\*
Matthews, H. A., B.A., Ph.D.

Lectr.
Henderson, H. C. K., M.A., B.Sc.
Glas. Lectr.
O'Dell, A. C., B.Sc. Lectr.†
Unstead, J. F., M.A. Camb., D.Sc.
Dir. of Research in

Regional Geog.

Geology [Reader.\*
avies, G. MacD., M.Sc., F.G.S.

Davies, G. MacD., M.Sc., F.G.S. Spath, L. F., D.Sc., F.G.S. Lectr.†

<sup>\*</sup> Head of Dept.

<sup>†</sup> Pt.-time Lectr.

Smithson, F., B.Sc., Ph.D., F.G.S. Lectr.†

German

Bithell, J., M.A. Manc. Reader.\* Reupke, W., Ph.D. Greifswald

Lectr.†

History [Reader.\*

Jones, Arthur, M.A. Manc. Morrell, W. P., M.A. N.Z., D.Phil. Ox. Reader.

Box, P. H., B.A. Ox., Ph.D. Illin. Lectr.

Italian

Crespi, A., D.Lett. Padua Lectr.†

Law

Welford, A. W. Baker, M.A. Camb.

(Jurispr., Com. L., Merc. L., Conflict of Laws).\*† O'Malley, B. L. A., B.A. Camb.

> (Roman L., Hist. of English L.) Lectr.†

Richardson, J. B., M.A., LL.B. Camb.

(Equity, Eng. L. of Property, Evidence, and Procedure) Lectr.†

Goitein, H., LL.D. (Const. and Crim. L.) Lectr.†

Mathematics, Pure and Applied Smart, E. H., M.A. Camb. Lectr.\*

\* Head of Dept.

Dienes, P., D.Ph. Budapest,
D. ès Sc. Paris Reader.
Fox, C., M.A. Camb., D.Sc. Lectr.
Cooke, R. G., D.Sc. Lectr.
Ball, A. E., B.A. Camb. Lectr.†
Lawrence, B. E., M.A. Ox., B.Sc.

Philosophy, Psychology, and Logic Joad, C. E. M., M.A. Ox. Lectr.\*† Greenwood, T., M.A., L. ès L. Paris (Logic) Lectr.†

Physics [Prof.\* Griffiths, A., D.Sc. Manc., A.R.C.S. Simons, L., D.Sc., F.Inst.P.

Reader.

Clack, B. W., D.Sc., Ph.D., F.Inst.P. Lectr. Nettleton, H. R., D.Sc. Lectr. 3 Demrs.

Zoology

Jackson, H. G., D.Sc. Liv. Prof.\* Spaul, E. A., D.Sc., Ph.D. Reader. Kitching, J. A., B.A. Camb. Lectr. Russell, Lilian, B.Sc. Sheff., M.Sc. Museum Asst. and Demr.

## Matriculation Department

\*W. Walker, M.A. Manc., B.Sc., H. E. Weaver, B.Sc., Lectr., and 9 specialists from other depts.

† Pt.-time Lectr.

## GENERAL INFORMATION

#### Address—Bream's Buildings, E.C.4.

Founded 1823 by Dr. George Birkbeck "for the purpose of giving education to students in the principles of the arts they practise, and in the various branches of Science and useful knowledge." A School of the Univ. in Arts and Science for evening and part-time students for 5 yrs. from Oct. 1930. Library: 27,000 vols., including special Science Departments. Complete courses for degrees in Arts and Science and also in Laws, and for the Academic Diploma in Geog. and for the Inst. of Chem. examns., and matricn. courses. Fees, including subs. to Students' Union: Arts and Laws, £10; Science (incl. Hons. Geog. in both Faculties), £12. Post-grad. work, 3 gs. to 5 gs. Playing Fields (18 acres) at Greenford. Publications: Calendar, 1s.; Report (annual); Haldane Memorial Lecture: Foundation Oration: Lodestone, 6d. (Students, terminally).

### THE YEAR 1930-31

BENEFACTIONS. Nil.

New Buildings. The Court of the Univ. has agreed to provide room for new buildings for the College on the Bloomsbury site on certain conditions.

NEW DEPARTMENTS AND POSTS. A Univ. Readership in Zoology tenable at the College; Lectureships in the Depts. of Hist. and Zool.

Other Developments. Faculty of Laws: Post-graduate facilities for LL.M.  $\!\!\!\!\!$ 

RETIREMENT. N. H. Howes, M.Sc., Lectr. in Zool.

STUDENTS. Part-time: total, 1227, including 337 graduates.

DEGREES OBTAINED. B.A., 35; M.A., 8; Ph.D., 3; B.Sc., 56; M.Sc., 4; Ph.D., 4; D.Sc., 2.

## LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

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VICE-CHAIRMAN-Sir JOSIAH STAMP, G.B.E., D.Sc., LL.D., F.B.A.

DIRECTOR—Sir Wm. H. BEVERIDGE, K.C.B., M.A., B.C.L. Ox., LL.D. Aberd. and Chic., D.Sc. (Econ.).

SECRETARY-Mrs. Mair, M.A.

LIBRARIAN-B. M. HEADICAR.

## PROFESSORS, LECTURERS, ETC.

Accountancy, v. also Com. Rowland, S. W., LL.B., F.C.A.

Lectr.

Anthropology, Social, v. also

Ethnology Malinowski, B., Ph.D. Cracow,

D.Sc. Prof.

Firth, J. R., M.A. (S). 2 Assts.

Banking and Currency, v. also

Commerce Gregory, T. E., D.Sc. (Econ.)

Cassel Prof. Whale, P. B., M.Com. Birm., B.Sc.

(Econ.) Reader. Hinton, W. J., M.A. (S). 1 Asst.

Commerce and Industry, v. also Law, Transport

Sargent, A. J., M.A. Ox. Prof. Plant, A., B.Sc. (Econ.), B.Com. Cassel Prof.

Anstey, Vera, D.Sc. (Econ.) Lectr.
Benham, F. C. C., B.Sc. (Econ.),
Ph.D. Ernest Cassel Lectr.
2 Assts.

Economics, v. also Russian Instns. and Econ.

Robbins, L., B.Sc. (Econ.) Lond., M.A. Ox. Prof. The Director (Descriptive E. and Public Admn.). Lectr. Dalton, Hugh, M.A. Camb., D.Sc. (Econ.), M.P. Reader.

Rowe, J. W. F., M.A. Camb., M.Sc. (Econ.) Reader.

Schwartz, G. L., B.A., B.Sc. (Econ.) Lectr.

Hicks, J. R., M.A., B.Litt. Ox. Lectr.

von Hayek, F. A., Dr. Jur., Dr. Sc. Pol. Vienna Visiting Prof. 3 Assts.

English

Routh, H. V., M.A. Camb., D.Lit. Reader.

I Asst.

Ethnology, v. also Anthropology Seligman, C. G., M.D., F.R.C.P., F.R.S. Prof.

Joyce, T. A., O.B.E., M.A. Ox. (S).

Finance, v. Politics

French, v. Modern Languages

French History and Institutions Vaucher, P., D. ès L. Paris Prof.

Geography, v. also Commerce Jones, L. Rodwell, B.Sc., Ph.D. Prof.

(S)=Special Lectr., not on the School Staff.

Stamp, L. D., B.A., D.Sc. Modern Languages \* (Econ. Geog.) Reader. Assts.: Ormsby, Hilda, B.Sc. (Econ.) Hicks, Grace, M.A. Camb. Hicks, W. C. R., B.A. Lectr. East, W. G., M.A. Camb. Pickles, W., M.A. Leeds. Asst. Lectr. Politics and Public Administra-2 Assts. tion German, v. Modern Languages Laski, H. J., M.A. Ox. History, Economic, v. also Politics Lees-Smith, Rt. Hon. H. B., M.A. Tawney, R. H., B.A. Ox, Litt.D. Ox., D.Sc. (Econ.) Manc. (Pub. Admn.) Reader. Power, Eileen E., M.A., D.Lit. Prof. Finer, H., D.Sc. (Econ.) Beales, H. L., M.A. Manc. Reader. (Pub. Admn.) Lectr. Judges, A. V., B.A. Lectr. Smellie, K. B., B.A. Camb. Postan, M., M.Sc. (Econ.) Lectr. (Pub. Admn.) Lectr. Rowse, A. L., M.A. Ox. Lectr. Ensor, R. C. K., M.A. Ox. I Asst. Wallas, Graham, M.A. Ox., Litt.D. Imperial Economic Relations Manc., Emeritus Prof., Univ. Coatman, J., C.I.E., B.A. Manc. London (Pol. Science) (S). and Ox. Prof. 2 Assts. I Asst. Russian Institutions and Eco-International History nomics Stevenson Research Prof.: Meyendorff, A., D.C.L. Durh. Toynbee, A. J., B.A. Ox. (till July Reader. Shipping, v. Transport Webster, C. K., M.A., Litt.D. Camb., F.B.A. (from Aug. 1) Social Science and Administra-International Relations tion Manning, C. A. W., M.A., B.C.L. Lloyd, C. M., M.A. Ox. Cassel Prof. Head of Dept. Robinson, L. G., M.A. Ox. Reader. Eckhard, Edith V., M.A. Camb. 2 Assts. Senior Tutor. Law, v. p. 186 Cullis, Prof. Winifred C., D.Sc. Logic, Psychology, and Philo-(Physiology) sophy Hart, B., M.D., F.R.C.P. (Psy-(S). chiatry) Wolf, A., M.A. Camb., D.Lit. Davison, R. C., M.A. Ox. (Logic and Scientific (S). Method) Prof. 5 Assts. Flugel, J. C., B.A. Ox., D.Sc. (S). Lectrs. for Course in Mental Lectrs. on Industrial Psychology: Health: Bevington, Sheila, B.Sc. (Econ.) (S). Burt, Prof. Cyril, D.Sc. (S). Harding, D. W., B.A. Fildes, Lucy G., B.A., Ph.D. Myers, C. S., C.B.E., M.A., M.D., Hadfield, J. A., M.A., M.B., Ch.B. Sc.D. Camb., F.R.S. (S.) (S). (S). Smith, May, M.A., D.Sc. (S). Moodie, W., M.D., M.R.C.P. (S) =Special Lectr., not on the School Staff.

\* Preparatory for B.Sc. (Econ.), Final, or for B.Sc. (Econ.) Intermediate; language courses for B.Com, are provided chiefly at King's and Univ. Colls.

I Asst.

[Prof. Statistics Posthuma, Margaret, M.B., Ch.B. Bowley, A. L., Sc.D. Camb., F.B.A. Rhodes, E. C., B.A. Camb., D.Sc. Shrubsall, F. C., M.A., M.D. (S). Reader. Tredgold, A. F., M.D., F.R.S.E. 2 Assts. Social Biology [Research Prof. Transport, v. also Commerce and Hogben, L., M.A. Camb., D.Sc. Law w. Tetley, M.A. Stephenson, Sociology, v. also Anthropology Cassel Reader. Ginsberg, M., M.A., D.Lit. Camb. Jones, Clement, C.B., M.A. (Sea Martin-White Prof. Transport) Marshall, T. H., M.A. Camb. Shanahan, E. W., D.Sc. (Econ.) (S). Reader. I Asst.

(S) = Special Lectr., not on the School Staff.

#### GENERAL INFORMATION

Address-Houghton St., Aldwych, W.C.2. Telegrams-" Poleconics, Estrand."

Founded 1895. A School of the Univ. recognized in the Faculties of Economics and Political Science (including Commerce and Industry), of Laws, and of Arts (in History, Geography, Sociology, and Anthropology).

Matriculated students are registered as Internal students of the Univ. with a view to the B.Sc. Econ., B.Com., LL.B., and B.A. (with Honours in Geog., Sociology, Anthrop., or History, or the Pass degree with Geog.), or to Higher degrees. Non-matriculated students can be registered for the Academic Diplomas in Geography, Psychology, Public Administration, and Sociology and Social Administration, and for the School Certificates in Social Science, in Mental Health, and in International Studies.

The lectures and classes at the School are open also, under certain conditions, to those who have not matriculated and do not wish to pursue a full Univ. course-in particular to those engaged in banking, accounting, railway and other transport, commerce and industry, to civil servants and municipal officials, to teachers, and to those engaged in or qualifying for social work. To all these the School affords the opportunity of specialized or advanced study on particular topics. The School is open on the same terms to men and to women, and classes and lectures are given both in the day and in the evening.

The School offers special facilities for post-graduate research, under the supervision of professors or otherwise. The British Library of Political and Economic Science, which includes the British Library of Political Science, the Edward Fry Library of International Law, and the Schuster Library of Comparative Legislation, also contains a number of special collections, such as the Acworth collection on Transport, the Hutchinson collection of works in all languages for and against Socialism, and other collections on Trade Unionism, Local Government, and Public Administration. The Library is open not only to those who are taking courses at the School, but, by permission of the Director, to any person desiring to utilize it for research or consultation. The Ratan Tata Foundation for research into social conditions is administered by the School, which maintains in connexion with it a Dept. of Social Science and Administration.

The fee for a complete day course in Economics or Commerce, spread over

3 or 4 years, is 78 guineas; in Law the day fee is 26 guineas a year, and in Arts about £35 a year. In the case of evening students considerable reductions in these fees are made. The fees include privileges of Students' Common Rooms and Athletic Societies. Playing fields at Malden are available for members of the Students' Union.

Research Studentships, £200, in addition to fees, are offered from time to time, v. Appendix XXIII. 9. Scholarships are awarded on the results of the University Intermediate Examns. There are entrance scholarships, bursaries, and valuable prizes.

Publications: Studies in Econ. and Pol. Sc.; Economica, a journal of the Social Sciences, quarterly, 3s. 6d. (12s. 6d. p.a.); Bulletin of the British Library of Political and Economic Science, quarterly, 2s. per annum; The Survey of English Law, an annual bulletin of developments in English legislation, case-law, and legal literature, 10s. 6d.; Annual Digest of Public International Law Cases, about 35s.; Clare Market Review (Students, once a term). Bulletin—with supplements—of the London and Cambridge Economic Service of Statistics and Memoranda, bearing on the current economic position, is maintained by the School, in co-operation with the Univ. of Cambridge and Harvard Univ. Subs. £6 p.a. School Calendar, 2s. 6d. or (cloth) 3s. 6d. Summary programmes free.

## THE YEAR 1930-31

BENEFACTIONS. The Rockefeller Foundation, generous grants to the School, for reconstruction of the Library \$300,000, for additions to the Library resources \$50,000, for acquisition of land for the extension of the School buildings \$150,000 (subject to a similar amount being found by the School), for the development of research and post-graduate work \$20,000 a year for 7 yrs. unconditionally, and a further \$10,000 a year for 7 yrs. conditional upon the School finding \$2 for every \$1 from the Foundation. The Commonwealth Fund, a grant up to £3600 p.a. for 3 yrs. towards the maintenance of the course on Mental Health. The Carnegie Endowment for International Peace, a grant of £800 towards the cost of the forthcoming volumes of the Digest of International Law Cases, and the four Inns of Court £50 each towards the same work. The Russell Sage Foundation, a grant of £250 for a study of unemployment; the Pilgrim Trust, £200 for a students' loan fund; and the Institute of Pacific Relations, £200 p.a. for 2 yrs. for research into movements of capital.

New Buildings. The first wing of the new building on the east side of Houghton Street has now been completed and was brought into use with the session 1931-32. The corner building, which was purchased from the St. Clements Press and adapted for School use, has been demolished and the site cleared for the erection of the first part of the new Library Block.

New Posts. New Chairs of Legal Hist. and of Econ. Hist., a new lectureship in Internat. Law, new assistantships in Law, Econ., Commerce, Econ. Hist., Anthropol., and Mental Health.

OTHER DEVELOPMENTS. The first vol. of the New Survey of London Life and Labour has been published, and the remaining vols. are to follow rapidly. Other projects of organized or co-operative research include the initiation of an Economic and Social History of London, a Land Utilization Survey of Gt. Britain, an investigation of unemployment and wages in France, a study of movements of capital within the Empire, and continued work on an International History of Prices.

VISITS OF TEACHERS FROM OTHER UNIVERSITIES. During the session 1930-

1931 public lectures were given at the School by Prof. Jacob Viner of the Univ. of Chicago, Don Salvador de Madariaga of the Univ. of Oxford, Prof. A. L. Goodhart of the Univ. of Cambridge, Dr. F. A. Hayek of the Austrian Institute for Economic Research, Vienna, Prof. W. E. Rappard of the Univ. of Geneva, Prof. R. Redslob of the Univ. of Strasbourg, and Prof. Lucien March of the Institut de Statistique de l'Univ. de Paris.

For the session 1931-32, Dr. F. A. Hayek has accepted an appointment at the School as a Visiting Professor in Econ. Science and Statistics.

RETIREMENTS. Mr. R. B. Forrester (Sir Ernest Cassel Reader in Foreign Trade) to the Chair of Econ. and Polit. Sci. in the Univ. Coll. of Wales, Aberystwyth. Mr. G. L. Paton (Asst. in Engl. Law) to the Chair of Jurisprudence in the Univ. of Melbourne. Mr. N. Skene-Smith (Asst. in Commerce) to the Chair of Foreign Trade in the Univ. of Commerce, Tokyo. Mr. W. M. Allen (Asst. in Econ.) to a lectureship in Econ., Balliol Coll., Oxford.

STUDENTS. Totals: Regular students, 1233; intercollegiate students, 471; occasional students, 1233. These figures include 569 graduates.

DEGREES OBTAINED. B.Sc. (Econ.), 75; B.Com., 30; LL.B., 6; B.A., 9; M.Sc. (Econ.), 2; M.Com., 1; M.A., 4; Ph.D., 11; D.Sc. (Econ.), 1.

## SOUTH-EASTERN AGRICULTURAL COLLEGE, WYE, KENT

CHAIRMAN OF GOVERNING BODY—EDWARD HARDY, J.P. PRINCIPAL—R. M. WILSON, B.Sc. (Agric.).
SECRETARY AND BURSAR—A. C. LESTER, B.Com., A.C.I.S.

#### TEACHING AND RESEARCH AND ADVISORY STAFF

Agriculture
The Principal.

Vickers, V. R. S., Vice-Principal. Fishwick, V. C., P.A.S.I., N.D.A.,

N.D.D.

Bescoby, H. B., P.A.S.I., N.D.A. Tinley, N. L., N.D.A., Dip. Agr. (Wye).

Hewison, M. V., Farm Manager.

Agr. Engineering Davies, C., T.D.A.

Smyth-Homewood, G. R. B., Dip.

Agr. (Wye). Wardley, W.

Martin, A. G.

Head, R. K.

Blezard, S. E.

Botany

Parkinson, S. T., B.Sc.

Pearl, R. T., B.Sc., A.R.C.S., D.I.C.

Harrison, R. M., B.Sc., A.R.C.S.

Chemistry Harwood, S. D. F., M.A., F.I.C.

Cole, L. W., B.Sc. (Agric.). Prowse, I. B., B.Sc. (Agric.), Dip. Agr. (Wye).

Economics

Wyllie, J., B.Sc. (Agric.), N.D.A., N.D.D.

Estate Management

Haines, A. H., P.A.S.I. Glossop, W. G. V.

Fruit-growing and Market Gardening

Miskin, W.

Bird, A. H., M.A., Dip. Hort. (Wye). Hunt, J. L., Dip. Hort. (Wye).

Geology and Zoology Brade-Birks, S. G., D.Sc.

Poultry

Rhodes, F. W., D.S.O. Fermor, C. E.

Veterinary Science and Bacteriology

M'Ewen, A. D., M.R.C.V.S. Roberts, R. S., M.R.C.V.S.

#### Research and Advisory Staff:

Chemistry

Goodwin, W., M.Sc., Ph.D.

Martin, H., M.Sc., A.R.C.S., F.I.C. Furneaux, B. S., M.Sc. Dip. Agr. (Wye).

Dairy Bacteriology Barkworth, H., M.C.

Economics

Wyllie, J., B.Sc. (Agric.), N.D.A., N.D.D.

Knox, M.A., B.Sc., Agric. Dip. (Ox.) Halls, H. G.

Entomology

Vary, S. G., B.A., Dip. Agric. (Camb.).

Mycology and Hops

Salmon, Prof. E. S., F.L.S.

Ware, W. M., M.Sc.

Burgess, A. H., B.Sc. (Agric.), Dip. Agr. (Wye).

Sexton, T. A. F., B.Sc.

#### GENERAL INFORMATION

Telegrams: College, Wye. Stations: Ashford (S.R.), 5 m., Wye (S.R.) ½ m. Founded 1894. A School of the Univ. in Science (Agric.).

LIBRARY, 4000 vols. LABORATORIES: Chem., Biol., Bact., Mycol., Entom., Vet. Sci.

The College (Residential) provides courses of instruction in Agriculture (British and Colonial) and Horticulture in preparation for the B.Sc. (Agric.), B.Sc. (Hort.), Dip. Agric. (Wye), Dip. Hort. (Wye), N.D.A., Dip. in Entomol. Special (2 yrs.) course for prospective planters in tropical countries. Farms, 585 acres, comprising arable, pasture, orchards, forestry, hop plantations, poultry, glass-houses, and nurseries.

The instruction meets the needs of young men who intend to farm at home or abroad, or desire posts as managers of estates, lecturers, and organizers in agric. and on the agric. staffs of Colonial Govts. The Appointments Bureau gives all possible assistance in placing qualified students in suitable employment. Fees, inclusive for board, lodging, and tuition: British subjects, £150 p.a.; others, £180 p.a. Tuition only—British subjects, £85; others, £115 p.a. Reduced fees for ratepayers of Kent, Surrey, and Sussex.

Publications: Journal, Prospectus.

## THE YEAR 1930-31

New Building. Oast for drying hops. Students. Full-time: total, 185. Degrees obtained. B.Sc. (Agric.), 11.

## LONDON DAY TRAINING COLLEGE

CHAIRMAN OF COUNCIL—Sir WILLIAM H. BEVERIDGE, K.C.B., M.A., B.C.L.

PRINCIPAL—Sir T. PERCY NUNN, M.A., D.Sc., Litt.D. Liv., LL.D. St. And.

#### PROFESSORS, LECTURERS, ETC.

The Principal Prof.
Punnett, Margaret, B.A.
Vice-Principal.
Burt, Cyril L., M.A. Ox., D.Sc. Ox.
Prof.

Fairgrieve, J., M.A. Ox., B.A. Reader. Hamley, H. R., M.A., M.Sc. Melb.

Lecturers and Tutors: Bell, J. J., M.A. Ox. and Liv. Gurrey, P., B.A., Ph.D. Lond. Miller, J. A. Y., M.A. Ox. von Wyss, Clotilde, F.L.S. Calthrop, Miss M. G., Mod. Lang. Tripos.

4 Instrs. in Art and Handwork, 1 in Music, 1 in Voice Production, 2 in Physical Training. 8 Supervisors of School Practice.

#### GENERAL INFORMATION

Address-Southampton Row, W.C.1.

Reader.

Founded 1902. The Chancellor and Vice-Chancellor of the Univ. and Chairmen of the L.C.C. and London Educn. Committee are ex-officio members of the College Council. A School of the Univ. in Pedagogy.

Schools under the L.C.C. and others are used for practical instruction, and

3 Demonstration Schools are attached to the College.

Students are trained under the Regulations for the Training of Teachers (H.M. Stationery Office, Kingsway, W.C.2) for Elem. and Secondary Schools. Undergraduates can take a 4 yrs.' course so as to combine B.A., B.Sc., or B.Sc. Econ. courses (taken at other Colls.) with Professional training. One who has already graduated may devote himself continuously for a year to Theory, etc., of Educn. and obtain the Univ. diploma. Courses for the M.A. and Ph.D. Degrees in Educn. are also provided. Fees: London students—nil; others—for a year spent entirely at the Training College for a professional course, £40. Publication: Prospectus (Sept.)

## THE YEAR 1930-31

New Post. Reader in Education.

STUDENTS. Full-time, 222, including 201 graduates. Part-time, 298, all graduates. Taking degree work at Academic Colls., 422.

DEGREES OBTAINED. M.A. (Edn.), 4; Teacher's Diploma, 188.

#### SCHOOL OF ORIENTAL STUDIES

PATRON-H.M. THE KING.

VISITOR-THE PRESIDENT OF THE BOARD OF EDUCATION.

Chairman—Sir S. Harcourt Butler, G.C.S.I., G.C.I.E., D.Litt., D.C.L. Ox.

DIRECTOR—Professor Sir E. DENISON Ross, C.I.E., Ph.D. Strass.

DEAN-C. O. BLAGDEN, M.A., D.Litt.

Secretary—J. H. Lindsay, M.A. Glas.

## PROFESSORS, LECTURERS, ETC.

Albanian [Lectr.\* Jopson, N. B., B.A. Camb.

Amharic and Ethiopic

Athill, Major L. F. I.
(Amh.) Lectr.\*
Weld, H., B.Litt. Ox. Lectr.\*
Harden, Rev. J. M., M.A., D.D.,

LL.D. (Eth.) Lectr.\*
Hirschfeld, Prof. H., Ph.D. Stras.

Rey, C. F. (Eth.) Lectr.\*

(Amh.) Lectr.\*

Arabic

Gibb, H. A. R., M.A. Lond. and Edin. Prof. Tritton, A. S., M.A., D.Litt. Lectr. Iles, G. E., O.B.E., M.A. Camb.

(Sudanese) Lectr. Gomaa, Sheikh M. M., B.A.

Qadir Zafir (Egyptian A.) Lectr.

Arabic Hist. and Lit.

Fulton, A. S., M.A.

(Classical A.) Lectr.\*

Armenian

Topalian, S. Lectr.

Assamese and Khasi [Lectr.\* Gurdon, Lt.-Col. P. R. T., C.S.I.

Bengali

Page, W. S., O.B.E., B.A., B.D. St. And. Reader.

Burmese

Hertz, W. A., C.S.I. Lectr.

Chinese

Johnston, Sir Reginald F., K.C.M.G., C.B.E., M.A. Ox., LL.D. Hongk. Prof.

Edwards, E. Dora, M.A., D.Lit. (Mandarin) Lectr.

Yumin Tao (Mandarin) Asst. Steele, J., M.A., D.Lit.

(Amoy & Swatow) Lectr.\* Waley, A., B.A.

(C. Poetry) Lectr.\*

Chinese Art and Archæology Yetts, W. Perceval Lectr.

Epigraphy of India and Ccylon Wickremasinghe, M. de Z., M.A., D.Lit. Lectr.

Gujarati

····· Lectr.

Hausa

Bargery, G. P. Lectr. Vischer, H. Lectr.\*

Hebrew, Modern

Wartski, I., B.A. Lectr.

Hindustani

Bailey, T. G., M.A., B.D., D.Litt. Edin. (Urdu & H.) Reader. Evans, D. E., B.A. (Vict.) Lectr.

<sup>\*</sup> On panel of additional lectrs., not on regular staff.

Leeson, G. E.  (Urdu & Hindi) Lectr.  History and Culture of British  Dominions in Asia, especially  India, v. also Sansk.  Dodwell, H. H., M.A. Ox. Prof.  Davies, C. C., Ph.D. Camb. Lectr.  History of the Near East  Toynbee, A. J., B.A. Lectr *  Iranian Studies  Bailey, H. W., M.A. West. Aust.,  B.A. Ox. Lectr.	Phonetics Lloyd-James, A., M.A. Camb., B.A. Wales Reader. Butlin, R. T., B.A. Lectr.  Polynesian, Melanesian, Micronesian, and Papuan Ray, S. H., M.A. Camb. Lectr.*  Sanskrit [Prof. Turner, R. L., M.C., M.A. Camb. Barnett, L. D., M.A. Camb., Litt.D. Vict. (S. & Anc. Indian Hist.)
Japanese Isemonger, Commdr. N. E., R.N. (retd.) Lectr. Yoshitake, S. Lectr. Mere, G. Lectr.*  Law, Indian [Reader. Sabonadière, A., I.C.S. (retd.)  Law, Indian Administrative Way, T. A. H. Lectr.*  Law, Ottoman [Hon. Lectr. Fitzgerald, S. G. V., M.A.  Malay Blagden, C. O., M.A. Ox., D.Litt. Rangoon Reader.	Stede, W., Ph.D. Leip. Lectr. Rylands, C. A., B.A. Camb.  Lectr. Kanhere, S. G. Lectr. Allan, J., M.A. Edin. (Oriental Palæog.) Lectr.*  Shan Inman, Capt. H. J. Lectr.*  Siamese Michell, J. Lectr.* Wales, H. G. Q., M.A. Camb. Lectr.  Sinhalese Wickremasinghe, M. de Z., M.A. Ox. Lectr.
Marathi Kanhere, S. G. Lectr.  Pali [Lectr. Davids, Mrs. C. A. R., M.A., D.Lit. Stede, W., Ph.D. Leip. Lectr.  Persian Ross, Sir E. Denison, C.I.E., Ph.D. Strass. Prof. Dārāb, G. H., Khan Lectr. Haig, Sir Wolseley, K.C.I.E., C.S.I., C.M.G., C.B.E., M.A. Dublin Lectr.  * On panel of additional lectr.	Swahili and Bantu Languages Ashton, Mrs. E. O. Lectr.  Tamil and Telugu [Lectr. Pathy, C. S. K., M.A. Edin.  Tibetan [Lectr.* Shuttleworth, H. Lee, M.A. Ox.  Turkish Ali Riza Bey Lectr. Topalian, S. Lectr.  Urdu, v. Hindustani

#### GENERAL INFORMATION

Address-Finsbury Circus, E.C.2.

Established by Royal Charter, 1916. A School of the Univ. in Arts. Library, 72,000 vols. Fees: 8 to 22 gs. per session; I.C.S. probationers,

40 gs. Scholarship (Gilchrist) of £50 in Chinese. Teaching provided in more than 50 languages and in the history, religions, and customs of Oriental and African countries. Special facilities for research work. Publications: Calendar (Sept.), is. 6d.; Prospectus (July); Bulletin, 6s. per part.

## THE YEAR 1930-31

BENEFACTIONS. Sir Perceval David, £500 for a lectureship in Chinese Art and Archæology for one year.

RETIREMENT. Dr. Chiu Bien-Ming.

STUDENTS. Full-time: total, 29, including 29 graduates. Part-time: total 503.

DEGREES OBTAINED: B.A., 6; M.A., 2; Ph.D., 11; D.Lit., 1.

#### BEDFORD COLLEGE FOR WOMEN

VISITOR—The Most Hon. the Marquess of Crewe, K.G., G.C.V.O. CHAIRMAN OF COUNCIL—Sir WILMOT HERRINGHAM, K.C.M.G., C.B., M.D., F.R.C.P.

Principal—Miss G. E. M. Jebb, M.A. Camb.

RESIDENT TUTOR—Miss M. A. CULLIS, O.B.E., M.A. Ox.

SECRETARY-Miss O. E. Monkhouse, M.B.E., B.A.

REGISTRAR-Miss E. M. E. HAYDON, M.A.

LIBRARIAN-Miss J. A. PATERSON.

#### PROFESSORS, LECTURERS, ETC.

Botany [Prof. Jones, W. Neilson, M.A. Camb. Halket, Miss A. C., B.Sc. Lectr. Garside, S., M.Sc. Manc. Lectr. I Demr. (part-time).

Chemistry, Inorganic and Physical Spencer, J. F., Ph.D. Bres., D.Sc. Liv., F.I.C. Prof. Trew, Miss V. C. G., Ph.D.

Jr. Lectr.

2 Demrs.

Chemistry, Organic [Reader. Turner, E. E., M.A. Camb., D.Sc. Shaw, Florence, R., D.Sc. Lectr. 2 Demrs.

Classics [(Greek) Prof. MacGregor, J. M., M.A. Ox. Tarrant, Miss D., M.A. Camb., M.A., Ph.D. Lond. Reader. Williamson, Harold, M.A. Ox. (Latin) Prof.

Furness, Miss S. M. M., Class. Trip.
Camb. Lectr.

Andrewes, Miss M., M.A. Lectr. 1 Asst. (part-time).

Dutch

Geyl, P., Litt.D. Leyden Prof. Weevers, T., Litt.D. Gron. Lectr. Economics, v. Social Studies English Language and Mediæval Lit. Thomas, P. G., M.A. Camb., Litt.D. Liv. Prof.

I Asst. (part-time).

English Literature
Abercrombie, L., M.A. Liv. Prof.
Ellis-Fermor, Miss U. M., M.A.,
B.Litt. Ox. Reader.
Covernton, Miss A. B. Lectr.
Butt, J. E., B.A., B.Litt. Ox. Lectr.

French Language and Mediæval
Lit. [Sr. Lectr.
Johnson, Miss F. C., M.A.
Terry, Mrs., M.A. Lectr.

French Literature
Eccles, F. Y., M.A. Ox. Prof.
Legros, René P., M.A. Edin. and
Ox. Lectr.

Geography
Hosgood, Miss B., B.A. Reader.
Smee, Miss D. K., M.A., Ph.D.
Lectr.
Timberlake, Miss E. M., B.Sc.

Jr. Lectr.

2 visiting Lectrs.

Geology [Reader. Hawkes, L., D.Sc. Durh., F.G.S. Dix, Miss E., M.Sc. Wales Lectr. German

Robertson, J. G., M.A. Glas., Ph.D. Leip., Hon. Litt.D. Manc. and Dub., F.B.A. Prof.

Massey, Miss I. M., Ph.D. Marb. Reader.

Haltenhoff, A. G.

Lectr.

History, Ancient [Reader. Cary, M., M.A., D.Litt. Ox.

History, Modern
Penson, Miss L., Ph.D. Prof.
Tooley, Miss M. J., M.A. Lectr.
Darlington, R. R., Ph.D. Reading
Jr. Lectr.

I Asst.

Italian

Dobelli, S'rina E. B. Sr. Lectr. Jeffery, Miss V. M., D.Lit. Lectr.

Mathematics [Prof. Hilton, Harold, M.A., D.Sc. Ox. Marshall, J., M.A., D.Sc. St. And. Reader.

Fowler, Mrs., M.A.

Lectr. (part-time).
Jervis, Miss S. D., M.Sc. Lectr.

Philosophy

Edgell, Miss B., D.Litt. Wales, Ph.D. Würz. Prof. (Psych.). Stebbing, Miss L. S., D.Lit.

Reader.

Hazlitt, Miss V. H., D.Lit. Lectr. 1 Asst. (part-time).

Physics

Wilson, W., Ph.D. Leip., D.Sc., F.R.S. Prof. Saltmarsh, Miss M. O., Math. Trip. and Nat. Sci. Trip. Camb., Ph.D. Reader.

2 Demrs.

Physiology

Edkins, Mrs., D.Sc.

Sr. Lectr. (temporary). Murray, Miss M. M. A., M.Sc.

(Biol. Chem.) Lectr.

I Demr.

Social Studies and Economics
Reid, Mrs., M.A. Camb. Director.
The Principal (Econ.) Lectr.
Williams, Mrs., B.A. Manc.

(Econ.) Lectr.

Pinchbeck, Miss I., M.A., Ph.D. (Econ. Hist.) Lectr. (part-time). 2 Visiting Lecturers.

Zoology

Boulenger, C. L., M.A. Camb.,
D.Sc. Birm. Prof.
Hett, Miss M. L., B.Sc. Lectr.
I Demr.

#### GENERAL INFORMATION

Address-Inner Circle, Regent's Park, N.W.1.

Founded 1849. A School of the Univ. in Arts and Science. Tate LIBRARY and Wernher Reading-Room contain 40,502 volumes. Special facilities for Research work in the LABORATORIES (Bact., Bot., Chem., Geol., Physics, Physiol., Psych., and Zool.).

Minimum age for admission, 18. Students are prepared for all examns of the Univ. of London in Arts and Science. In Medicine the College is recognized by the Univ. for purposes of the First M.B., and in Chem. and Physiol. for the Second M.B. Examn.

RESIDENTIAL accommodation for 73 students in the Coll. and 150 at the College Houses. Fees (Inclusive Sessional), for tuition: Interm: Arts—42 gs.; B.A.—31 to 38 gs.; M.A.—8½ to 15 gs.; Interm. Science and B.Sc. Pass—53 gs.; B.Sc. Hons.—38 to 53 gs.; M.Sc. and Ph.D.—15 to 21 gs. Residence with board—76 to 100 gs. Union Society—15s.; Athletic Union—25s.

Scholarships for graduates: One (Lady Huggins) in Sociology, awarded

from time to time; one (Amy Lady Tate) for research in Arts or Science, f125 p.a. for 2 yrs.; "F.M.W." Medical, f50; Gilchrist, f30 for 1 yr.; Gamble (tuition fees); Notcutt Travelling Studentship, f200 for session 1933-34.

Publications: Calendar, post free, 3s. 6d.; B.C. Magazine (Students).

## THE YEAR 1930-31

Benefactions. Miss H. Busk, Iron gates for all College Entrances. The late Miss R. L. Webb, £1000 for annual prizes or scholarships in Bot. or Geol.

NEW BUILDINGS. New buildings named "Tuke Building" completed, and in use from beginning of session 1931-32.

VISITS OF MEMBERS OF STAFF TO OTHER UNIVERSITIES. Prof. L. Abercrombie to Queen's Univ., Belfast, as Lecturer in Fine Art, Poetry, 1932. Miss L. Stebbing, D.Lit., to Columbia Univ., N.Y., Michaelmas Term, 1931, to give two courses of lectures.

RESIGNATIONS. Dr. Haantjes (Dutch), Miss L. C. Kempson (Resident Tutor).

Students. Full-time, 602, including 25 graduates. Part-time, 73, including 12 graduates.

DEGREES OBTAINED. B.A., 78; M.A., 4; Ph.D., 1; B.Sc., 45; M.Sc., 1; D.Lit., 1.

#### ROYAL HOLLOWAY COLLEGE FOR WOMEN

CHAIRMAN OF THE GOVERNORS—The LORD ASKWITH, K.C.B., D.C.L. PRINCIPAL—Miss E. C. HIGGINS, B.A.

SECRETARY TO THE GOVERNORS—Miss U. R. DOLLING.

PRINCIPAL'S ASSISTANT AND LIBRARIAN—Miss U. BURTON, B.A.

#### PROFESSORS, LECTURERS, ETC.

Sr. Lectr. Botany Blackwell, Miss E. M., M.Sc. Liv. Madge, Miss M. A. P., Ph.D., B.Sc. Asst. Lectr. & Demr.

Chemistry Moore, T. S., M.A. Ox. Boyle, Miss M., D.Sc. Staff Lectr. Ross, Miss K. I., B.A., B.Sc. Ox. Asst. Lectr. & Demr.

Classics Sleeman, J. H., M.A. Prof. Taylor, Miss M. E. J., M.A. Dub. Sr. Lectr. Woodward, Miss A., M.A. Lectr.

English [Sr. Lectr. Willcock, Miss G. D., M.A. Green, Miss H. A., M.A. Lectr. Gardner, Miss H. L., B.A. Ox.

Asst. Lectr. French [Sr. Lectr. Honey, Miss M. E. D., M.A.

McWilliam, Miss N., M.A. Edin. Lectr. West, Miss C. B., B.A., M.Litt. Camb. Asst. Lectr.

Olgiati, Mlle. D. (Conversation)

Assistante.

#### German

Delp, Miss W. E., D. de l'Univ. Sr. Lectr. Richey, Miss M. F., M.A., D.Lit.

Asst. Lectr. History Prof. Johnstone, Miss Hilda, M.A. Manc. Powell, Miss I. G., M.A. Smalley, Miss B., B.A. Ox., Ph.D. Manc. Asst. Lectr.

Mathematics [Prof. Baker, B. B., D.Sc. Edin., M.A. Rowell, Miss E. M. Sr. Lectr. Pick, Miss M., M.A. Lectr. The Principal Lectr.

**Physics** Horton, F., Sc.D. Camb., M.Sc. Birm., D.Sc., F.R.S. Smith, C. J., Ph.D. Lectr. & Demr. Huggett, Miss E. D., B.A. Camb.

Asst. Demr.

#### Art

Drawing and Painting Carey, C. W. Teacher. Music [Lectr. & Director. Barker, Miss S. M. 3 Visiting Teachers.

#### GENERAL INFORMATION

## Address-Englefield Green, Surrey.

Opened in 1886. 19 miles from London. A School of the Univ. in Arts and Sci. Library, 22,800 vols. Labs.: Bot., Chem., Physics: Botanic Gardens. Area, 95 acres. Residential accommodation for over 200 students and staff. Courses for first and higher degrees in Arts and Sci. Incl. FEES: £144 a yr. Entrance Schps., £80, etc.; post-graduate studentships. Publications: Calendar, 2s. post free; R.H.C. Letter (Old Students' Assn.).

## THE YEAR 1930-31

STUDENTS. Full-time: total, 212, including 3 graduates. DEGREES OBTAINED. B.A., 28; B.Sc., 28; M.A., 1; M.Sc., 1.

## WESTFIELD COLLEGE, HAMPSTEAD

CHAIRMAN OF COUNCIL—Sir THOMAS INSKIP, C.B.E., K.C., M.P. PRINCIPAL-Miss D. CHAPMAN, M.A. St. And.

## PROFESSORS, LECTURERS, ETC.

Botany [Reader. Delf, Ellen M., D.Sc., F.L.S.

Fry, Miss E.J., M.Sc. Wales, F.L.S.

Lectr. Martin, Miss M. T., M.Sc. Demr. Biochemistry

McKie, Miss P. V., Ph.D. Wales, D.Sc. Lectr.

Classics

Lecturers:

Parker, Miss C. E., M.A. Ox. Dyson, G. W., M.A. Camb. Barratt, Miss C., M.A. Ox.

English Lang. and Lit.

Davis, B. E. C., M.A. Ox. Reader. Serjeantson, Miss M. S., M.A. Liv.,

D.Phil. Ox. Reader. Lea, Miss K. M., M.A. Ox. Lectr.

French [Reader.

Turquet, Mme., M.A., D.Lit.

Lecturers:

Crosland, Mrs., M.A. (part-time). Turquet, A., L. ès L., Chev. Lég. d'H. (part-time).

History

Levett, A. E., M.A. Ox. Prof. Martin, Miss E. C., M.A., Ph.D. (Imp. H.) Reader.

Thornton, Miss G. A., Ph.D.

Lectr.

Mathematics, Pure and Applied Stanley, Miss G. K., M.Sc., B.Sc. Reader. Sargent, Miss W. L. C., M.A. Camb.

Lectr.

#### GENERAL INFORMATION

Address-Kidderpore Avenue, Finchley Rd., N.W. 3.

Founded in 1882 by Miss Dudin Brown, the college is undenominational, but the Principal must be a member of the Church of England. Near the S.W. corner of Hampstead Heath; residential accomm. for 116 students. A School of the Univ. in Arts.

Students are not admitted under the age of 18, and are required to pass an Entrance examn. Approved courses (Hons. and Pass) in the Fac. of Sci. in Bot. and Maths. are provided, as well as in Arts. Two Research Studentships are offered each year to graduates of any Univ., v. App. XXIII. 1. Fees: tuition from 38 to 53 gs., residence £90 per session. There is an Old Students' Assocn. Publications: Prospectus (July); Report (October); Hermes (Students' Mag.).

## THE YEAR 1930-31

New Post. Asst. Lectr. in Mathematics.

RETIREMENTS. Miss E. C. Lodge, Principal; Miss L. J. Whitby (Maths.). STUDENTS. Full-time: total, 153, including 7 graduates.

DEGREES OBTAINED. B.A., 31; B.Sc., 8; M.A., 3; M.Sc., 1.

## KING'S COLLEGE OF HOUSEHOLD AND SOCIAL SCIENCE

#### WARDEN-Miss HELENE REYNARD, M.A.

#### PROFESSORS, LECTURERS, ETC.

Biology	[Reader.	Craig, Marjorie	Asst. Lectr.
Esdaile, Philippa C., D.	Sc.	<b>S</b> 3	
Crofts, Doris, M.Sc.	Lectr.	Hygiene and Baci	
Chemistry		Proctor, Ruth,	
Tinkler, C. Kenneth, D.	Sc. Prof.	Ch.B., D.P.H.	
Jackman, Agnes, B.Sc.	Lectr.	Dukes, C. E., O.B.	
Paterson, M. Joyce, M.A.		M.Sc., D.P.H.	Lectr.
Economics and Busine		Physiology	
Reynard, Helene, M.A.	Lectr.	Mottram, V. H., M	.A. Prof.
Stanners, Harold, B.Sc.	(Econ.)	Hartwell, Gladys, I	D.Sc. Lectr.
	Lectr.	Clifford, Winifred M	M., M.Sc.
Household Work			Asst. Lectr.
Lindsay, Jessie	Lectr.	Physics	
Wood, Edith	Lectr.	Dillon, Teresa J., M	I.Sc. Lectr.
Tress, Helen	Lectr.	Andrewes, U., Ph.I	Demr.

## GENERAL INFORMATION

#### Address-Campden Hill Road, W.8.

Formerly a dept. of King's Coll. for Women; since 1928 an independent School of the Univ. Residential accommodation (Queen Mary's Hostel) for 120 students.

Full degree courses for B.Sc. in Household and Social Science. Fees: For tuition, 45 gs., residence, 75 to 93 gs. per session. Publication: Students' Magazine.

## THE YEAR 1930-31

Buildings. Extensions to Physics Dept. and Household Arts Dept. in progress.

STUDENTS. Full-time, 178. Part-time, 10.

DEGREES OBTAINED. B.Sc., H. and Soc. Sc., 21.

# THEOLOGICAL SCHOOLS OF THE $UNIVERSIT\gamma$

#### RECOGNIZED TEACHERS

New

AND

HACKNEY

HAMPSTEAD

In the following list the names of the Theological Schools are indicated by symbols thus:

Wesleyan

COLLEGE.

(N.).

KING'S COLLEGE THEOLOGICAL DEPT. (KT.). Theology Bicknell, Rev. E. J., M.A., D.D. Ox. [(KT.). Clogg, Rev. F. B., M.A. Camb., B.D. Reader (WR.). Davies, Rev. W. A., M.A. Ox. and Wales, B.D. (N.). Dearmer, Rev. P., D.D. Ox. (KT.). Farrer, Rev. A. J. D., B.A. Garvie, Rev. A. E., M.A. Glas. and Ox., D.D. Glas., D.Th. (N.). Gilbert, Rev. T. W., M.A., D.D. (J.).Hanson, Rev. R., M.A. Ox., B.D. (KT.). (KT.). Hollis, Rev. F. J., D.D. Hooke, Prof. S. H., M.A. Ox.,

Jenkins, Rev. C., M.A. Ox., F.S.A. (KT.). Oesterley, Rev. W. D. E., D.D., M.A. (KT.). Relton, Rev. H. M., D.D. (KT.). Robinson, Rev. H. W., D.D. Edin., M.A. Ox. and Edin. Rogers, Rev. C. F., M.A. Ox. (KT.). Smith, Rev. C. R., B.A., D.D. Prof. (WR.). Smith, Rev. F. H., D.D. (KT.). Smith, Rev. H., M.A. Camb., D.D. (J.).Tasker, Rev. R. V. G., M.A. Camb. (KT.).

Waterhouse, Rev. E.S., M.A., D.D.

Woolf, Rev. B. L., M.A., Ph.D.,

B.D., B.Sc. Edin.

COLLEGE.

St. John's Hall, Highbury

RICHMOND

Prof. (WR.).

(WR.).

(J.).

#### GENERAL INFORMATION

B.D., B.A.

HACKNEY AND NEW COLLEGE, HAMPSTEAD (Congregational), Finchley Road, N.W.3. Principal—Rev. A. E. Garvie, M.A., D.D., D.Th. Secretaries—Rev. H. Staines, M.A., B.D., and Rev. T. R. Grantham.

(KT.).

New College, founded in 1696 and reconstituted in 1850, and Hackney College, founded in 1803, were merged into one institution in 1924. *Library*, 75,000 vols. Sessional fee, 6 gs. for each class. "Internal" students—33.

KING'S COLLEGE, THEOLOGICAL DEPARTMENT (Church of England), Strand, W.C.2. Dean—Rev. R. Hanson, M.A., B.D. Secy.—S. T. Shovelton, M.A. Founded 1829 (v. King's Coll.). Complete courses for all Theol. degrees. Day and Evg. Classes. Fees: for tuition, undergraduate courses, £32 per session; evening classes, 5 gs. per term. Hostel for students: fee for residence, £22 per term. Full-time students, 240; internal students of the University, 84. The College grants A.K.C. Diploma in Theology.

WESLEYAN COLLEGE, RICHMOND, Surrey. Principal—Rev. C. Ryder-Smith, B.A., D.D. Secy. of Staff—Rev. L. F. Church, B.A., Ph.D.

Opened 1843. Students are accepted candidates for Ministry of Wesleyan Methodist Church, but other Univ. students may be admitted. Residential accommodation for 60. "Internal" students—21.

ST. JOHN'S HALL, HIGHBURY, London, N.5 (Church of England). Principal—Rev. T. W. Gilbert, M.A., D.D. Hon. Secy. of Council—Rev. Prebendary H. W. Hinde, M.A.

Founded and endowed 1863 by Dr. A. Peache, Chancellor of the Western Univ. of Canada. Courses for L.Th. Durham as well as for B.D. of London. Fees: Entrance, 2 gs.; board and tuition, £93. Residential accommodation for 80 students.

## MEDICAL SCHOOLS OF THE UNIVERSITY

#### RECOGNIZED TEACHERS

Note.—In the following list the names of the Medical and other Schools are indicated by letters thus:

ROYAL ARMY MED. COLLEGE (AM.). LISTER INSTITUTE (LI.). ST. BART.'S HOSP. MED. COLL. (B.). LONDON (R.F.H.) Sch. of MED. (LW.). FOR WOMEN BETHLEM ROYAL HOSPL. (Bm.). MIDDLESEX HOSPL. MED. SCH. (M.). CANCER HOSPL. (Can.). CHARING CROSS HOSPL. MED. Sch. (C.). MAUDSLEY HOSPL. (My.). ROYAL DENTAL HOSPL, OF LOND. NAVAL MED. SCH., GREENWICH (NM.). SCH. OF DENT. SURG. (D.). Sch. of Pharmacy (P.). GUY'S HOSPL, MED. SCH. (G.). St. George's Hospl. Med. Sch. (SG.). LONDON SCHOOL OF HYGIENE St. Mary's Hospl. Med. Sch. (SM.). AND TROPICAL MEDICINE (H.). St. Thomas's Hospl. Med. Sch. (T.). KING'S COLL. HOSPL. MED. SCH. UNIV. COLL. HOSPL. MED. SCH. (UM.). (KM.). WESTMINSTER HOSPL. MED. SCH. (W.). LONDON HOSPL. MED. COLL. (L.).

and names of certain institutions having recognized teachers thus:

BROMPTON HOSPL. FOR CONSUMPTION (BH.).
HOSPL. FOR SICK CHILDREN (SCh.).
NATIONAL HOSPL. FOR DISEASES
OF THE NERVOUS SYSTEM (NH.)

ROYAL LONDON OPHTHALMIC HOSPL. (Oph.).
NATIONAL INSTITUTE FOR MEDICAL RESEARCH (MR.).

Anæsthetics Boyle. H. E. G., M.R.C.S.. L.R.C.P. (B.). Chaldecott, J. H., L.R.C.P. (SM.). Daly, A.S., L.R.C.P., M.R.C.S. (M.). Gandy, E. W., O.B.E., B.A. Camb., L.R.C.P., M.R.C.S. (W.). Hughes, C. H. M., O.B.E., M.B., B.S., L.R.C.P., M.R.C.S. (KM.). Mennell, Z., M.B., L.R.C.P., M.R.C.S. (T.).Richards, H. A., M.A. Camb. (KM.). Shipway, Sir F. E., K.C.V.O., M.A., M.D., B.Ch. Camb. (G.). Sprott, Barbara, M.B., B.S.

[Prof. (T.). Anatomy Clark, W. E. Le G., F.R.C.S. Harris, H. A., B.Sc. Wales, D.Sc., B.S., L.R.C.P., M.B., M.R.C.S. (Clin. A.) Prof. (UM.). Frazer, J. E. S., F.R.C.S. Prof. (SM.). Johnston, T. B., M.B., Ch.B. Edin. Prof. (G.). Keene, Mrs. M. F. L., M.B., B.S. Prof. (LW.). Mitchiner, P. H., M.D., M.S., L.R.C.P., F.R.C.S. Robinson, R. H. O. B., M.A., M.B., M.Ch. Camb., F.R.C.S. Stibbe, E. P., F.R.C.S., L.R.C.P. (L.).

(AM), (B), etc., v. Note above.

(LW.).

Wright, W., D.Sc. Bir., M.B., Ch.B. Manc., F.R.C.S. Prof. (L.). Yeates, T., M.B., C.M. Edin., B.Hy. Prof. (M.). D.P.H. Durh. Bacteriology, v. also Path. Bamforth, J., M.D., Ch.B., D.P.H. Liv., M.R.C.P., M.R.C.S. (T.). Bulloch, W., M.D., C.M., LL.D. Aberd., F.R.S. (recogd. in Path.) Goldsmiths' Prof. (L.). Douglas, S. R., F.R.S., L.R.C.P., M.R.C.S. (MR.). Dudgeon, L. S., C.M.G., C.B.E., F.R.C.P. (T.).Dukes, C. E., O.B.E., M.D. Edin., M.Sc., D.P.H. (KM.). Duncan, J. T. (H.).Eyre, J. W. H., M.D., M.S. Durh., D.P.H. Camb. Prof. (G.). Fleming, A., M.B., F.R.C.S. (SM.). Freeman, J., M.A., D.M., B.Ch. (SM.). Ox. Garrod, L. P., M.A., M.B., B.Ch. Camb., M.R.C.P., M.R.C.S. (B.). Goadby, Sir Kenneth W., K.B.E., L.R.C.P., M.R.C.S., L.D.S., D.P.H. Camb. (UM.). Hunt, E. L., D.P.H. Camb., M.B., B.S., L.R.C.P., M.R.C.S. (also in Path.) (SG.). Ledingham, J. C. G., C.M.G., M.A., M.B., Ch.B., D.Sc. Aberd., F.R.S. Prof. (LI.). M.Sc. Manc., Lovell, R., M.R.C.V.S., D.V.S.M. (H.). Nabarro, D. N., B.Sc., M.D., D.P.H., F.R.C.P. (S.Ch.). Okell, C. C., M.C., B.A., M.B., B.Ch. Camb., M.R.C.S., M.R.C.P., D.P.H., D.T.M. & Prof. (UM.). Petrie, G. F., M.D., Ch.B. Aberd. (LI.). Rosher, A. B., L.R.C.P., M.R.C.S., D.P.H. (C.).

Ross, Joan M., M.B., B.S., M.R.C.P., M.R.C.S. (LW.). Schütze, H. L., M.D. Würzb. (LI.). Topley, W. W. C., M.A., M.D., B.Ch. Camb., F.R.C.P., M.R.C.S. Prof. (H.). Whitby, L. E. H., M.A., M.D., M.R.C.P., M.R.C.S., D.P.H. (M.).Wilson, G. S., M.D., B.S., M.R.C.P., M.R.C.S., D.P.H. Prof. (H.). Wright, Sir A. E., K.B.E., C.B. Prof. (SM.). Bio-Chemistry, v. also Chem. Path. Dodds, E. C., M.V.O., M.D., B.S., Prof. (M.). B.Sc., M.R.C.S. Gulland, J. M., M.A. Ox., D.Sc. Ed., Ph.D. St. Andr. Reader (LI.). McLean, Ida S., D.Sc. (LI.). Raistrick, H., B.A. Camb., D.Sc. Prof. (H.). Leeds Reeves, H. G., D.Sc., M.Sc., Ph.D. Birm. Robertson, A., M.B., B.Ch. Edin. Reader (H.). Robison, R., Ph.D. Leip., D.Sc., F.I.C. Prof. (LI.). Ryffel, J. H., M.A., B.Ch. Camb., B.Sc., F.I.C. (recogd. Forensic Med.) Reader (G.). Wooldridge, W. R., Ph.D. Camb., M.Sc., M.R.C.V.S. (H.). (LI.). Zilva, S. S. Biology Cunnington, W. A., M.D. (B.). Evans, T. J., M.A. Ox. (G.). Leigh-Sharpe, W. H., B.Sc. (SM.). Mudge, G. P., A.R.C.S. (L., LW.). Rushton, W., A.R.C.S. (T.). Woodger, J.H., B.Sc. Reader (M.). Chemistry Candy, H. C. H., B.A., B.Sc., F.I.C. (L.). Ellis, G. W., O.B.E., D.Sc. (SM.).

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Dental Prosthetics Newham, H. B. G., C.M.G., M.D., Allen, A. G., L.D.S. (L.). D.P.H., D.T.M. and H. Camb. Fry, W. K., M.C., L.R.C.P., (H.). M.R.C.S., L.D.S. (G.). Venereal Diseases Milne, J. B., L.D.S. Edin. (KM.) O'Donovan, W. J., M.D. (L.). Harrison, Col. L. W., D.S.O., Dental Surgery M.B., Ch.B. Glas. (T.). Buxton, J. L. D., L.D.S. (UM.). Zoology, v. also Protozoology Clapham. H. D., L.R.C.P., Evans, Thomas James, M.A. Ox. M.R.C.S., L.D.S. (L.). (G.). Dowsett, E. B., D.S.O., L.D.S., L.R.C.P., M.R.C.S. (G.). Dentistry Fish, E. W., M.D., Ch.B., L.D.S. Dental Anat. and Physiol. Manch. (SM.). L.R.C.P., Malleson, H. C., Hankey, G. T., L.R.C.P., M.R.C.S., M.R.C.S., L.D.S. (G.). L.D.S. Pitts, A. T., D.S.O., L.R.C.P., M.R.C.S., L.D.S. (D.). Herman, W. S., B.A. Camb., M.R.C.S., L.R.C.P., L.D.S. Dental Materia Medica (L.). Coleman, F., L.R.C.P., M.R.C.S., Pritchard, G. B., L.R.C.P., L.D.S. (D.). M.R.C.S., L.D.S. Doubleday, F. N., L.D.S. (G.). (Dental Histology) (G.). Smale, H., L.R.C.P., M.R.C.S., Dental Mechanics Bull, F. B., L.D.S. L.D.S. (G.). (SM.). L.R.C.P., Chapman, H., L.D.S. E. C., (Ortho-Sprawson, M.R.C.S., L.D.S. dontics) (L.). (L.). Olver, S. H., L.D.S. Steadman, S. F. St. J., L.R.C.P., (UM.). Richards, P. A. E., F.I.C. (D.). M.R.C.S., L.D.S., D.P.H.

(AM), (B), etc., v. Note on p. 169.

(UM.).

Turner, I.G., F.R.C.S., L.D.S. (D.).

#### GENERAL INFORMATION

Samuel, B., L.D.S. (Orthodontics)

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Founded 1247. A centre for the teaching and practice of *Psychological Medicine*. Two courses of lectures and practical instruction for D.P.M. are held annually. Daily clinical instruction classes. Pathological Laboratory. X-ray apparatus.

THE CANCER HOSPITAL (FREE), Fulham Rd., S.W.3. Dir. of the Research Inst.—Prof. E. L. Kennaway, D.Sc., M.D. Dir. of the Radiological Dept.—Prof. J. M. Woodburn Morison, M.D., F.R.C.P.Ed. A School of the Univ. for 3 yrs. from Oct. 1, 1931, for the purpose of research in (i.) Advanced Pathology, and (ii.) Radiology in relation to malignant disease.

CHARING CROSS HOSPITAL, Medical School, Charing Cross, W.C.2. Dean—E. A. Crook, M.Ch., F.R.C.S. Secy.—Wyndham Edwards. Founded 1821. Appointed and Recognized Teachers (v. supra)—14. Fees: entrance, 10 gs.; annual, 38 gs. Several scholarships, etc.

ROYAL DENTAL HOSPITAL OF LONDON SCHOOL OF DENTAL SURGERY, 32 Leicester Sq., W.C.2. Dean—H. Stobie, L.R.C.P., M.R.C.S., L.D.S. Secy.—W. J. Wadham.

Founded 1858. Open to both sexes. Recognized Teachers—5 (v. supra); others—30. Library, Museum, and Laboratories. X-ray Dept. Students are admitted for the curriculum for the B.D.S. Degree and the L.D.S. Diploma. Fees: for the L.D.S., £70 for 2 yrs.' Hospl. practice and Lectures, or, including 2 yrs.' Dent. Mechanics, £210; for the B.D.S., £35 annually for first three yrs., and £70 for fourth.

GUY'S HOSPITAL, Medical School, St. Thomas's St., Borough, S.E.T. Dean—Prof. T. B. Johnston, M.B., Ch.B. Secretary—J. H. E. Winston, F.I.S.A.

Founded in connexion with St. Thomas's, 1769; as a separate School, 1825. Appointed and Recognized Teachers—50 (v. supra). Library, 10,000 vols. Museum, 5000 specimens and 2000 drawings. 648 beds. Fully equipped Dental Dept. with Lab. Fees: entrance, £28; annual, £49. Foundations in aid of Research: Lect'ship in Path., approx. £1300 p.a.; in Clin. Chem., £250; Trav. Studentship, £150; Studentship in Mat. Med., £55; in Path., £250; Dem'rship in Clin. Chem., £150; in Path., £320; Med. Research Fellowship, etc. Numerous prizes and entrance scholps. Resident appointments—numerous House appointments are made every 3 mths. from amongst the recently qualified students. Residential accommodation for 35 students. Furnished rooms, 19s. to 36s. Students' Publication: G.H. Gazette. Women students are not eligible for admission.

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, Keppel Street (Gower Street), W.C.I. Dean—Prof. W. W. Jameson, M.A., M.D., F.R.C.P. Secy.—R: W. Harris.

This School was constituted by Royal Charter on April 1, 1924. In accordance with the terms of the Charter the School was recognized on Nov. 18, 1931, in the Faculty of Science and in the Faculty of Medicine in so far as the branches of Public Health, Hygiene, State Medicine, and Tropical Medicine are concerned. The school has been built and equipped with a sum of \$2,000,000 provided by the Rockefeller Foundation, who made the gift on the understanding that the British Government would make adequate grants for staffing and maintaining the School. It includes the following depts.: (1) Public Health; (2) Bio-Chemistry and Chemistry as applied to Hygiene; (3) Bacteriology and Immunology; (4) Medical Zoology; (5) Epidemiology and Vital Statistics; (6) Clinical Tropical Medicine. It provides for the training and equipment of public health officers, and for research in various branches of preventive medicine.

The courses of study in all branches of the work of the School are given in the new premises in Keppel St. (Gower St.), which has excellent labs. and research rooms, a fine lecture theatre and classrooms, library and museum.

Diploma in Tropical Medicine and Hygiene. On Aug. 1, 1924, the School took over from the Seamen's Hospital Society the old School of Tropical Medicine. Appointed and Recognized Teachers—18 (v. supra). In the various Hospis. of the Seamen's Hospital Society are always numerous cases of Trop. Diseases available for teaching purposes. The funds available for encouraging research include the Tropical Diseases Research Fund, the Wandsworth Bequest, and the E. J. Stanley Memorial. (See Appendix XXIII.) Research expeditions are equipped and maintained by the School and Field Stations established. Students must ordinarily be qualified Med. practitioners. There are 3 sessions of 3 months each (Laboratory and Clin. instruction) and 2 of 2 months each (Trop. Hyg.) designed for the D.T.M. and H. of the Conjoint Board and for candidates for the M.D. in Trop. Med. Certificates granted. Fees: \$\frac{4}{2}\$ for the whole course, or \$\frac{2}{2}\$ and \$\frac{1}{2}\$ f, respectively.

Diploma in Public Health. The course of study commencing October r extends over a period of 9 months' whole-time study, and is so arranged that students will be able to comply with all requirements of the Gen. Med. Council. The School provides 300 hours instruction in Bacter., Parasit. (including Med. Ent.), Chem., Physics, Meteorol., and Climatol., and 170 hours in Hyg., Pub. Health Admin., Epidemiol. and Vital Stats. Included in the syllabus are a number of special lectures by recognized experts in various public health problems, and a similar number of visits to carefully selected places of outstanding public health interest. The course of study is designed to enable cands. to proceed to the new academic Dipl. in Pub. Health instituted by the Univ. Fee for course, 54 gs.

Diploma in Bacteriology. The special course of study for the Dipl. in Bacter. covers a period of one acad. year beginning in October. Fee for course, £47:15s.

KING'S COLLEGE HOSPITAL Medical School, Denmark Hill, S.E.5. Dean—H. Willoughby Lyle, M.D., B.S., F.R.C.S. Vice-Dean—J. A. Drake, M.D., F.R.C.P., D.P.H. Secy.—S. C. Ranner, M.A.

Appointed and Recognized Teachers—30 (v. supra); others—18. Fees: entrance, 10 gs.; complete courses for Med. Degree and Diploma examns., 200 gs.; final course only, 93 gs. Scholarships: Scholarships of a total value of £1530 are offered annually (particulars on application). Hostel with accommodation for 80 men students. Students' Publication: K.C.H. Gazette.

End, E.r. Dean—Prof. W. Wright, M.B., D.Sc., F.R.C.S. Secy.—E. J. Burdon. Women students are not eligible for admission.

Founded 1781. Appointed and Recognized Teachers—44 (v. supra); others—65. Library includes Thompson Yates Research Library containing chief foreign periodicals for Anat., Physiol., and Path. Laboratories include those of the Bernhard Baron Inst. of Path. for Advanced Research. 839 beds. Fees: entrance, 20 gs.; annual, 40 gs. 39 scholps. and prizes. Hostel for 25 students. 160 appointments available for students. Students' Publication: L.H. Gazette.

LISTER INSTITUTE OF PREVENTIVE MEDICINE, Chelsea Bridge Rd., S.W.I. Director—Prof. J. C. G. Ledingham, C.M.G., M.B., D.Sc., F.R.C.P., F.R.S. Secy.—A. L. White.

Founded 1891 for Research into causation, prevention, and treatment of diseases of men and animals. Open to approved Research students of both sexes, usually without fee. Appointed and Recognized Teachers—7 (v. supra); 12 other members of scientific staff.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN, 8 Hunter St., Brunswick Sq., W.C.I. Dean—Miss E. Bolton, M.D., B.S. Warden and Secy.—Miss Brooks.

Founded 1874. Appointed and Recognized Teachers—26 (v. supra); others—32. 268 beds. Special arrangements with several other Hospls. for Clin. study and dresserships, etc. Research Laboratories: Anat., Biol., Chem., Obst. and Gyn., Path., Pharmacol., Physics, Physiol. Courses for B.Sc. Hons. in Anat. and Physiol., as well as for Med. degrees and diplomas. Arrangements for Dental students. Fees: £50 p.a. throughout the course. Students' Publication: L.S.M. Gazette.

MAUDSLEY HOSPITAL, Denmark Hill, S.E.5. Medical Superintendent—E. Mapother, M.D., F.R.C.P., F.R.C.S. Director of Pathological Department—F. L. Golla, M.B., F.R.C.P.

Founded by the London County Council for research in Psychological Medicine, the teaching of this subject, and the treatment, on a voluntary basis, of those suffering from neuroses and from recoverable forms of mental disorder. The Hospital, which is similar in general character to the Neurological and Psychiatric Clinics of the Continent and America, and the associated Pathological Department, which serves all the London County Mental Hospitals (containing 21,000 patients), were admitted as a School of the University for research in Psychological Medicine on May 7, 1924. The Hospl. has 177 beds and an out-patient department. The Path. Dept. includes a Library and Laboratories for anatomical, bio-chemical, bacteriological, and experimental investigations. Diploma and other courses for undergraduate and graduate students. Facilities for research and for gaining experience. Ordinarily no charge is made for research work, and special grants-in-aid may be made.

MIDDLESEX HOSPITAL, Medical School, Mortimer St., W.I. Dean—T. Izod Bennett, M.D., F.R.C.P. School Secy.—R. A. Foley.

Founded 1835. Appointed and Recognized Teachers—40 (v. supra); others—13. Over 470 beds, including Cancer wing (90); Bland-Sutton Institute of Path. with Museum and Labs.; Cancer Research Labs.; The S.A. Courtauld Institute of Bio-Chemistry; the Ferens Institute of Otology.

Scholarships, etc., worth over £1000 p.a. Fees: Entrance, £25; 5 annual, £45. No accommodation for women students.

NAVAL MEDICAL SCHOOL OF THE ROYAL NAVAL COLLEGE, Greenwich, S.E.10. Director of Med. Studies—Surg.-Captain S. F. Dudley, O.B.E., M.D., B.S., M.R.C.P. Lond., M.R.C.S., D.P.H., D.T.M., R.N.

Opened 1912. Courses (twice a year) in General and Naval Hygiene, Clin. Path., Micro-Biology, for acting Surg.-Lieuts. (2 mos., followed by 4 mos. at Haslar Hospl.); Surg.-Lieuts. (5 mos.) for promotion; for Senior Med. Officers (3 mos.). Number of officers under instruction (average)—70 a year.

SCHOOL OF PHARMACY of Pharmaceutical Society of Great Britain, 17 Bloomsbury Sq., W.C.r. Dean—Prof. H. G. Greenish, D. ès Sc. Paris, F.I.C., F.L.S.

Founded 1842. Admitted as a School of the Univ. (in Pharmacy only) on Jan. 1, 1925. Recognized Teachers—3 (v. supra); others—8. Fees: Course for the Chemist and Druggist Qualifying Examn., £31: 103.; for the Pharmaceutical Chemist Qualifying Examn. and for the B.Pharm. degree (2 years), £44: 2s. (each year). Open to students of both sexes.

ST. GEORGE'S HOSPITAL, Medical School, Hyde Park Corner, S.W.1. Dean—A. Feiling, M.D., F.R.C.P.

Founded 1752. Appointed and Recognized Teachers—19 (v. supra); others—19. 440 beds. Fees: entrance for Clinical course, 10 gs. Annual composition, 40 gs. Scholarships, etc., worth £180 p.a. for encouragement of research. St. G.'s Gazette is issued 3 times a year. Women students are not eligible for admission.

ST. MARY'S HOSPITAL, Medical School, Paddington, W.2. Dean—C. M. Wilson, M.D., F.R.C.P. Secy.—B. E. Matthews, B.A. Students' Publication: St. M. H. Gazette.

Founded 1852. Appointed and Recognized Teachers—33 (v. supra); others—17. Fees: Course for 1st M.B., 3 terms, 20 gs.; entire curriculum, £205. Scholarships: £210 (2), £200 (2), £25. Clinical Units in Med. and Surg. established in 1920–21.

ST. THOMAS'S HOSPITAL, Medical School, Albert Embankment, S.E.I. Dean—Prof. L. S. Dudgeon, C.M.G., C.B.E. Medical Secretary—R. J. C. Thompson, C.M.G., D.S.O., M.D., M.R.C.P.

Founded in 13th century. Recognized Teachers—37 (v. supra); others—36. Path. Dept. includes Museum with 3000 specimens. Large Laboratories for teaching and research. Hospl. beds, 602. Fees: Tuition per annum, £50. Hostel accommodation for 50. Women students are not eligible for admission.

TROPICAL MEDICINE, LONDON SCHOOL OF HYGIENE AND, v. supra.

UNIVERSITY COLLEGE HOSPITAL, Medical School, University Street, W.C.I. Dean—A. M. H. Gray, C.B.E., M.D., F.R.C.P., F.R.C.S. Vice-Dean—Gwynne Williams, M.S., F.R.C.S. Sub-Dean for Dental Students—J. L. Dudley Buxton, L.M.S.S.A., L.D.S. Secy.—R. Sloley. Open to both sexes.

The Med. School was separated from the Univ. Coll. Med. Faculty in 1905. Recognized Teachers—27 (v. supra); others—84. Library, 20,500 vols. The Charles Graham Laboratories, under the direction of Prof. A. E. Boycott,

were established in 1902 for research in Path. A limited number of qualified students are admitted as Lab. workers, to whom grants may be made. Fees: course for Final M.B., B.S., or 3rd examn. of Conjoint Board—112 gs. Scholarships, etc.: annual value, £1250. Students' Hostel: Adjoining the Medical School is a specially equipped Hostel solely for students in the School. Large bed-sitting rooms are available as well as Common Rooms. All meals are provided in the School Refectory. A member of the staff resides at the Hostel. Residence for Maternity students. Publications: Prospectus, Transactions of Research Dept., Magazine (Students').

The NATIONAL DENTAL HOSPITAL, founded in 1861, became the Dental Department of Univ. College Hospl. in 1914. Address: 187-191 Gt. Portland St. and 59 Devonshire St., W.I.

WESTMINSTER HOSPITAL, Medical School, 12 Caxton St., Westminster, S.W.I. Dean—A. S. Woodwark, C.M.G., C.B.E., M.D., F.R.C.P. Secy.—Major J. Burke, D.S.O., M.C., D.C.M.

Founded 1834. Recognized Teachers—28 (v. supra); others—13. Fees: f40 p.a. and 10 gs. entrance.

### Institutions with Recognized Teachers

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Fulham Rd., S.W.3. Dean—W. J. Fenton, M.B., B.Ch. Camb., M.R.C.P. Recognized in Med., Oto-Rhino-Laryng. Pathol. Postgraduates are admitted to the hospital practice, the fee being I guinea per month. Undergraduate courses are held before each Conjoint Board examn. Applications should be made to the Dean.

HOSPITAL FOR SICK CHILDREN, Gt. Ormond St., W.C.I. Dean— E. I. Lloyd, F.R.C.S. Recognized in Bact., Dis. of Child., Surg.

NATIONAL HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, Queen Square, London, W.C.I. Dean—J. G. Greenfield, B.Sc., M.D., F.R.C.P. Recognized in Med., Neurology, Ophth., Oto-Rhino-Laryng., Surg. Twomonth courses are given three times a year which qualify for the Diploma in Psychological Medicine.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Rd., E.C.1. Dean —C. B. Goulden, M.D., F.R.C.S. Recognized in Ophth. Students, 170.

NATIONAL INSTITUTE FOR MEDICAL RESEARCH, Hampstead, N.W.3. Departments for Experimental Pathology and Bacteriology, Biochemistry and Pharmacology, and Applied Optics. All communications should be addressed to the Secy., Medical Research Council, 38 Old Queen St., S.W.I. See also Appendix XXIV. A. VII.

# FACULTY OF LAWS

The teaching of the Univ. has been arranged on an inter-collegiate basis, the Profs. and Teachers of Univ. and King's Colls. and of the London Sch. of Econ. dividing the work among them. For the evening teaching of Law, see also Birkbeck Coll., and for Indian and Ottoman Law, see Schl. of Oriental Studies.

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PROFESSORS, LECTURERS, ETC.
*Ball. W. Valentine, O.B.E., M.A.
    Camb. (Railway L.)
*Chorley, R. S. T., M.A. Ox.
        Cassel Prof. of Comml.
           and Indust. L.
                            (E.).
*de Montmorency, J. E. G., M.A.,
    LL.B. Camb.
        Quain Prof. of Compara-
                            (U.).
           tive L.
*Hibbert, W. N., LL.D. (Jurispr.
    and Roman L.)
                            (K.).
* Jennings, W. I., M.A., LL.B. Camb.
       Reader in English L. (E.).
Jolowicz, H. F., M.A. Ox., M.A.,
    LL.B. Camb.
        Prof. of Roman L. and
          Lectr. in Jurispr. (U.).
Keeton, G. W., M.A., LL.M. Camb.
       Reader in English L. (U.).
Lauterpacht, H., LL.D., Dr. Jur.,
   Dr. Sc. Pol. Vienna (Internat.
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*Morgan, J. H., B.A. Ox., M.A.
Prof. of Constitutional
L. (U.), and Lectr. in
Colonial Constitutional
L. (U.).
Odgers SirC. F. M.A. B.C.L. (K.)
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Odgers, Sir C. E., M.A., B.C.L. (K.). \*Parry, D. Hughes, M.A., LL.M. Camb., B.A. Wales

Prof. of English L. (E.). Plucknett, T. F. T., LL.B. Camb., M.A.

Prof. of Legal Hist. (E.). Potter, H., Ph.D. Birm., LL.B.

Reader in English L. (K.).

Richardson, J. B. (Eng. L.) (U.). Robson, W. A. B.Sc. (Econ.), LL.M., Ph.D. (Indust. and Admin. L.) (E.).

Sabonadière, A. (Hindu and Mohammedan L.)

Reader (U. and O.).

\*Smith, H. A., M.A. Ox. Prof. of Internat. Law (E.).

In addition the following teachers of Law not recognized by the University are on the staffs of the several Colleges.

(E.).

(Code Civil) (E.).

Davies, D. J. Llewelyn, M.A.

Camb., LL.B. Wales

(Eng. L.) (E.).

Allemès, F., L. ès L., Avocat

L.)

Davies, D. Seaborne, M.A. Camb., LL.B. Wales (Engl. L.) (E.).

Dold, G. W. F., B.A., LL.B. (Roman. Dutch L.) (U.). FitzGerald, S. G. V., M.A.

(L. of Palestine, Cyprus and Iraq.) (U.).

Jones, R. W. (Banking)
Gilbart Lectr. (K.).

\*Maxwell,E.F.M.(Railway L.) (E.). \*Tillard, L. B., B.A. Camb.

(Mercantile L.) (E.).

Williams, C. H., M.A. (U.). Wortley, B.A., LL.B. Leeds

(Engl. L.) (E.).

\* Barrister-at-Law. For explanation of letters (E), etc., see p. 110.

# OTHER INSTITUTIONS HAVING RECOGNIZED **TEACHERS**

- (I) GOLDSMITHS' COLLEGE.\*
- (2) BATTERSEA POLYTECHNIC.
- (6) JEWS' COLL.
- (7) NORTHAMPTON POLYT. INST.
- (8) NORTHERN POLYTECHNIC.
- (9) ROYAL VETERINARY COLL.
- (10) SIR JOHN CASS TECH. INST.
- (II) CHELSEA POLYTECHNIC.
- (12) WEST HAM MUNICIPAL COLL.

- (13) WOOLWICH POLYTECHNIC.
- (14) MARIA GREY TRAINING COLL.
- (15) St. Mary's Coll., Paddington.
- (16) FURZEDOWN TRAINING COLLEGE.
- (18) ROTHAMSTED EXPERIMENTAL STATION.
- (19) ROYAL ACADEMY OF MUSIC.
- (20) ROYAL COLL. OF MUSIC.
- (21) TRINITY COLL. OF MUSIC.
- \* Incorporated in the Univ.

# NAMES OF RECOGNIZED TEACHERS

Note.—In the following list the names of the instns. are indicated by numerals—as shown above. Nos. omitted were assigned to Instns. which no longer exist, or which now have no recognized teachers. Teachers to whom only probationary recognition has been granted are not included in the list.

Biochemistry	
Richards, E. H., B.Sc., F.I.C	
(Agric. Biochem.)	
Tattersfield, F., D.Sc.	(18).
Biology, v. supra, Me	dical
- Schools' Recognized Tea	
Botany	
Brett, Margaret, M.Sc.	(8).
Brenchley, Winifred E., D.Sc	
(Agric. B.)	
Brierley, W. B., D.Sc. Manch	
(Plant Pathol.)	
Lacey, H. B., F.L.S.	(11).
Chemistry	
Barnett, E. de B., B.Sc.	(IO).
Bell, F., B.Sc., Ph.D.	(2).
Clough, G. W., D.Sc. Birm.	(9).
Crowther, E. M., D.Sc. L	eeds,
D.I.C. (Soil C.)	(18).

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Davies, C. W., M.Sc. Wales
                               (2).
Dean, G., M.A. Camb.
                              (12).
Dorée, C., M.A. Ox., D.Sc.
                              (II).
Drakeley, T. J., Ph.D., M.Sc.,
    F.C.S., A.I.C.
                               (8).
Field, S., A.R.C.S. (Applied C.) (7).
Goodway, N. F., M.Sc.
                              (IO).
Heap, T., B.Sc. Manc., M.Sc.,
    Ph.D.
                               (2).
Houssa, A. J. H., M.Sc., A.I.C.
                               (2).
Kenyon, J., D.Sc., F.I.C.
                               (2).
King, H. J. S., Ph.D., M.Sc.
                               (8).
Lowe, F. H., M.Sc. Manc.
                              (II).
Patterson, W. S., M.Sc. Leeds,
    Ph.D. (App. C.)
Russell, Sir E. John, D.Sc., F.R.S.
              (Agric. Chem.) (18).
Sand, H. J. S., Ph.D. Zür., D.Sc.
    Birm.
                             (IO).
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Shacklock, C. W., M.Sc. (8). Skellon, J. H., M.Sc., B.Sc. Brist.	Burgess, Alfred F., B.Sc. (Eng.)
(11). Smith, F. W., B.Sc. (8). Thorne, P. C. L., M.A. Camb., M.Sc., Ph.D., F.I.C. (13). Ward, A. M., B.Sc., Ph.D. (10).	Dover, A. T. (2). Dowse, C. M., B.Sc. (Eng.) (7). Fleming, J. G., B.Sc. (Eng.) (2). Howgrave-Graham, R. P. (recognized also in Applied Physics)
Chemistry, Organic Crocker, J. C., M.A. Camb., D.Sc., F.C.S. (11). Richardson, D. H., M.Sc. (8).	Jolley, A. C. (7).  Mann, H. C., B.Sc. (Eng.) (2).  Spencer, W. G., M.Sc. (Tech.)  Manc. (13).
Classics Crump, Mary, M.A. (Latin) (1).	Engineering, Mechanical, v. also E., Civil
Education, v. also Music Dean, A. E., M.A., M.Litt. (1).	Ashworth, M. H., B.Sc. Manc. (13).
Firth, Catherine B., D.Lit. Lond. (16).	Davies, V. C., B.Sc. (2). Dumbrill, W. E., B.Sc. (Fluids)
Graveson, Caroline C., B.A. (1). Green, Mrs. A. N., M.A. Manc. (15). Johnston, Katharine L., M.A. Sheff., T.D. Camb., B.A. (14). Meiklejohn, Grace I. W., M.A. Edin. (14). Reaney, Mabel J., D.Sc. Lond.	Edmonds, H. M., B.Sc. (Eng.) (2). Frier, J. D. (Fluids) (7). Holley, E. G., M.Sc., A.C.G.I., D.I.C. (12). Larard, C. E., M.I.Mech.E., M.I.C.E. (7).
Silsby, Eleanor, M.Sc. Lond. (16). Smith, Phyllis W., M.A. (14). Steppat, Mrs. M. A. A., M.A. Durh., M.A. (14). Storr, Muriel, M.A. Ox. (1). Terry, Edith, M.A. Lond. (16).	Peck, W. J., M.Sc. (Eng.) Sheff. (2). Richardson, D. (7). Scoble, W. A., M.B.E., D.Sc. (Eng.), M.I.Mech.E. (13). Shaw, J. B., A.R.C.S. (2). Ward, J., B.Sc. (Eng.) (7).
Wimms, J. H., M.A. Wales, B.Sc. (1).	Engineering, Mech., and Surveying
Engineering, Civil Bolam, W. N., B.Sc. Edin. (7). Brooks, W. H., Ph.D., B.Sc. (Eng.)	Gladwyn, A. E., B.Sc. (Eng.) (12). Parker, W. E., B.Sc. (Eng.) Manc.
Curnock, W. E. M., M.Sc. (Eng.) Manc., B.Eng. Liv., (Lectr. in Civ. and Mech. E.)	Eng. Lang. and Literature Rees, W., M.A. Ox., Ph.D. (1).
(2). Ward, J., B.Sc. (Eng.) (7).	Geology Maslen, A. J., F.G.S. (11).
Engineering, Electrical Baillie, T. C., D.Sc., M.A. Edin.	History Dymond, Dorothy, M.A. (1).  Mathematics
Boraston, C. A., B.Sc. (Eng.) Liv. (7).	Church, A. E. R., M.A., B.Sc. (10). Clay, R. S., B.A. Camb., D.Sc.
Bridger, W., B.Sc. (Eng.) (12).	(M. and <i>Physics</i> ) (8).

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Curzon, H. E. J., M.A. Camb., D.Sc. (1). Geary, A., M.A. Camb., M.Sc. (7). Harvey, F. W., M.A. R.U.I., B.Sc. (2). Henderson, J. M. A., B.Sc. Edin., Ph.D. (K., 10), Littlejohn, E. S., M.Sc. Manc. (12). Ludlam, A. E., M.Sc. Birm. (11). Rhind, A., B.Sc., A.R.C.S. (8). Salmon, W. H., M.A. Camb., B.Sc. (12). Saxelby, F. M., M.Sc. Manc., B.A. (2). Smith, R. T., B.A. Camb. (13). Topping, J., Ph.D., M.Sc. Manc. (11). Medicine and Surgery, v. supra (p. 169). Metallurgy Naish, A. C.	Lovelock, W., B.Mus. (21).  McEwen, Sir John B., M.A. Glas., Mus.D., F.R.A.M. (19).  Macpherson, S., F.R.A.M. (19). Oldroyd, G., D.Mus. (21). Roper, E. S., M.V.O., M.A., Mus.B. (21). Salsbury, Janet, Mus.D. Durh., L.R.A.M., F.R.C.O. (21). Sowerbutts, J. A., B.Mus., F.R.C.O. (19). Waddington, S. P. (20). Wallace, W., M.D. Glas., F.R.A.M. (19). Warriner, J., Mus.D. Dub. (also in Pedag. as applied to Music) (21). Wharton - Wells, H., B.Mus. Ox. and Durh., F.R.C.O., L.R.A.M. (also recognised in Pedag. as applied to Music) (11). Pedagogy, v. Education and
A.I.C. (11).	
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	Music
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Sr. Lectr.

Asst. Lectr.

Orr, J., M.A. Ox. and Manc., History, v. also Econ., Palæog., B.Litt. Ox., L. ès L. Paris Theol. (Fr. Lang.) Prof. Jacob, E. F., M.A., D.Phil. Ox. Crump, Phyllis E., M.A. Lond. and (Mediæval H.) Prof. Manc. Sr. Lectr. Atkinson, D., B.A. Ox., M.A. (Ancient H.) Prof. Lecturers: Namier, L. B., M.A. Ox. (Mod. H.) Marks, J., M.A. Valette, Andrée, Mod. Lang. Hons. Tait, J., M.A. Ox. and Manc., Ox.Litt.D., F.B.A. Hon. Prof. Robertson, Marion E. I., M.A. Edin., D. ès L. Paris Lecturers: Asst. Lecturers: Hughes, Edward, M.A. (Mod. and Reid, T. B. W., M.A., LL.B. Dub., Military Hist.). L. ès L. Montp. Wilkinson, B., M.A., Ph.D. Holdsworth, F., B.A. Shef. Asst. Lecturers: Chrimes, Kathleen M. T., M.A. Assistants: Gosselin, Marcelle V. A., L. ès L. Ox.Taylor, A. J. P., B.A. Ox. Paris Marchand, A., L. ès L. Montp. Industrial Psychology, v. Psy-Geography chology Fleure, H. J., D.Sc. Wales Prof. Italian Fitzgerald, W., M.A. Liv. Lectr. Rébora, P., D.Litt. Turin, M.A. Davis, Arthur, M.Sc. Wales Prof. Asst. Lectr. Guercio, F., B.A. Liv. Asst. Ashton, Mary B., B.A. Lecture Asst. LawGeology, Palæont., and Petrol. Eastwood, R. A., LL.D. Pugh, W. J., O.B.E., D.Sc., B.A. Hedges, R. Y., LL.M. (Internat. Wales Prof. L.). Sr. Lectr. Lecturers: Lecturers: Straw, S. H., M.Sc. Lond. Easton, J. M., M.A. Ox. Williams, N. T., B.Sc. Wales Jolly, J. C., B.A. Camb. (Mining). Walmsley, A., LL.B. Lond. Morton, E., M.Sc. McDougall, A., B.A. Tasm., B.A., (Applied Geol.) Sp. Lectr. B.C.L. Ox. Hodge, M. B., M.Sc., Ph.D. Durh. Turner, H. P., M.A., LL.M. (Rly. Asst. Lectr. and Factory L.). German Lang. and Lit. Webber, G. J., LL.B. Lond. Henry Simon Prof. . . . . . . Mathematics, v. also Technol. Lectr. . . . . . . Mordell, L. J., B.A. Camb., M.Sc., Gillies, A., M.A. Shef. Asst. Lectr. F.R.S. Shelley, Clarice L., M.A. Wales (Pure M.) Fielden Prof. Asst. Lectr. Hartree, D. R., M.A., Ph.D. Thielke, K. L. F., B.A. Shef. Asst. Camb. Theol.—Semitic Hebrew.v. (Applied M.) Beyer Prof. Langs. and Lit. Lecturers: Histology, v. Anat., Physiol., Child, J. M., B.A. Camb., B.Sc. Pathol. Lond.

196 ENGLAND Eagle, A., B.Sc. Lond., A.R.C.S. Bailey, W. N., M.A. Camb., M.Sc. Lond., D.Sc. Asst. Lecturers: Todd, J. A., B.A. Camb. Jackson, J. M., B.Sc. Lond. Hunter, W., M.A. Camb., B.Sc. Lond. Withington, Doris, M.Sc. Lectr. Asst. Medicine, v. infra Lond. Metallurgy and Metallography, v. also Technol. Thompson, F. C., B.Sc. Lond., D.Met. Shef., M.Sc. Prof. O'Neill, H., M.Met. Shef., D.Sc. Sr. Lectr. B.Sc. Jones, E. O., Lond., Phys.). A.R.S.M. (Electro-Metallurgy) West, J., B.Sc. Lectr. Cuthbertson, J. W., M.Sc. Asst. Lectr. Military Organization and Tactics, v. also Hist. Penlington, Capt. T. N. Hon. Lectr. Mining, v. Geology

Music

Keighley, T., Mus.D.

(Harmony and M. Com-Lectr. position)

Wilcock, A. W., Mus.D. (Hist. of M.) Lectr.

Bragg, Prof. W. L. (Acoustics). Dickson, E. C. S., B.A. Camb., Ph.D. Bonn.

(Acoustics) Sr. Lectr.

Palæography

Tyson, M., M.A., Ph.D. Lectr. Philosophy, v. also Theol.

Stocks, J. L., D.S.O., M.A. Ox. and Manc. Sir Samuel Hall Prof.

Alexander, S., O.M., M.A. Ox. and Manc., D.Litt. Ox. and Durh., Litt.D. Manc. and Liv., LL.D. Birm. and St. And., F.B.A.

Hon. Prof. Rhees, R., M.A. Edin. Asst. Lectr. Physics, v. also Electro-Technics and Elect. Engin.

Bragg, W. L., M.A. Camb., M.Sc., F.R.S., Nobel Laureate

Langworthy Prof. Schuster, Sir Arthur, Sc.D. Camb., Ph.D. Heid., D.Sc., F.R.S. Hon. Prof.

Sr. Lecturers:

Nuttall, J. M., D.Sc.

James, R. W., M.A. Camb., B.Sc.

Dickson, E. C. S., B.A. Camb., Ph.D. Bonn.

Lecturers:

Bell, H., M.A. Edin.

Brentano, J. C. M., D.Sc. Mun. Henry, D. C., M.A. Camb. (Colloid

Williams, E. J., M.Sc. Wales, Ph.D. Camb. and Manc. (Math. Phys.). Sp. Lectr.

Sutherland, G. A., M.A. Camb. Sp. Lectr.

Asst. Lecturers:

Taylor, W. H., M.Sc., Ph.D.

Gurney, R. W., M.A., Ph.D. Camb. Physiology [Brackenbury Prof.

Raper, H. S., C.B.E., D.Sc., M.B., Ch.B. Leeds, M.Sc., F.R.S.

Lamb, F. W. J. A., B.A., M.D., D.P.H. Dub.

(Human Physiol.) Reader.

Lecturers:

Ritchie, A. D., M.A. Camb. and St. And. (Physiol. Chem.).

Schlapp, W., M.B., Ch.B., B.Sc., Ph.D. Edin. (Exper. P.).

Hon. Asst. Lecturers:

Langley, G. J., M.B.E., M.D., B.S. Lond., M.R.C.P.

Diggle, F. H., O.B.E., F.R.C.S.

Bramwell, J. C., M.A. Camb., M.D., F.R.C.P. (Exper. P.).

Brennan, H. J., M.B., Ch.B. (Applied P.) Asst. Lectr.

Bacteriology, v. infra

Twort, C. C., M.D. Aberd.

Bottomley, A. C., M.Sc., Ph.D.

Cancer Research

Assistants:

Demonstrators:

(Human P.).

(Physiol. Chem.).

par. P.).

L.R.C.P.

Whittenbury, G. V., B.Sc. (Com-

Winter, L. B., M.A., M.D. Camb.

Pugh, Cæcilia E. M., M.Sc., Ph.D.

Director.

Chemist.

Prof.

Twort, J. M., B.Sc. Lond. Political Philosophy, v. Philos. Lyth, R., B.Sc., Dip. Bact. Psychology ΓProf. Children, Diseases of [Lectr. Pear, T. H., B.Sc. Lond., M.A. Lapage, C. P., M.D., F.R.C.P. Tames, H. E. O., B.A., M.Sc. Clinical Investigations Lectr. Wilkinson, J. F., M.Sc., M.D., Wyatt, S., M.Sc., M.Ed. Sp. Lectr. Ph.D. Dir. of Lab. Russian Trofimov, M. V., M.A. Pet. and Dermatology Manc. Clin. Lecturers: Sir William Mather Prof. Dyson, W., O.B.E., M.D. (also Hon. Sp. Lectr., Path. of the Semitic Languages, v. Theol. Skin). Spanish Sr. Lectr. Savatard, L., L.S.A. Rees, J. W., M.A. Ox., B.A. Wales Gibson, R., M.D. Edin. Sarmiento, E., B.A., Ph.D. Lond. Asst. Lectr. Ear, Throat, and Nose, Diseases Statistics Campion, H., M.A. Com. Sewell, D. L., M.B., B.S. Lond., Robert Ottley Lectr. M.R.C.S., L.R.C.P. Technology, v. infra (Ear) Lectr. Theology, v. infra Wrigley, F. G., M.D. (Throat and Nose) Lectr. Veterinary Hygiene, v. infra Bacteriol. and Prev. Med. Forensic Medicine ZoologvAnderton, W. B., M.B. Lond., Cannon, H. G., M.A., Sc.D. Camb., M.R.C.S., L.R.C.P. Lectr. D.Sc. Lond. Beyer Prof. Hygiene, v. infra Bacteriol. and Brown, F. J., M.Sc. Sr. Lectr. Prev. Med. Miles, H. W., M.Sc. Brist., Ph.D. Infectious Diseases [Clin. Lectr. (Agr. Entomol.) Lectr. Sutherland, D. S., M.D. Glas. Asst. Lecturers: Materia Med. and Therap. Lowe, Esther, M.Sc. Liv. . . . . . . Leech Prof. Marples, B. J., B.A. Ox., M.Sc. Macdonald, A. D., M.A., M.B., Brough, J., B.Sc. Durh. Ch.B. Edin. Reader. MacGill, Elsie I., M.Sc. (Entomol.) Rawsthorne, F., L.D.S. (Eng.) Res. Asst. (Dental Mat. Med.) Lectr. Medicine Bedford, T. H. B., M.Sc., M.B., (for subjects of first 2 yrs.-Anat., Ch.B. Leeds, M.R.C.P. (Pharmacol.) Asst. Lectr. etc., v. supra). Anæsthetics Medicine, Clinical Hill, E. F., M.B., Ch.B., M.R.C.S., Ramsbottom, A., M.D., D.P.H.,

Lectr.

F.R.C.P.

Lecturers:

Melland, C. H., M.D. Lond., B.Sc., F.R.C.P. Core, D. E., M.D., F.R.C.P. (also in Neurol.). Oliver, T. H., M.D., M.R.C.P. (also in Syst. Med.). Leech, E. B., M.D. Camb., F.R.C.P. Medicine, Systematic, v. also Med., Clin. Tylecote, F. E., M.D., D.P.H., F.R.C.P. Prof. Langley, G. J., M.B.E., M.D., B.S. Lond., M.R.C.P. (Gen. Therap.) Reader. Wilkinson, J. F., M.Sc., M.D., Ph.D. Lectr. Ferguson, F. R., M.D., D.P.H., M.R.C.P. Demr. Mental Diseases Blair, D., M.A., M.D. Glas. Lectr. Cormac, H. D., M.B., M.S. Madr., D.P.M. Lectr. Neurology, v. Med., Clin. Obstetrics and Gynæcology Dougal, D., M.C., M.D. Prof. Bride, J. W., M.D. Lond. and Manc. Lectr. Bailey, K. V., M.C., M.D., M.R.C.P. Asst. Lectr. Hunter, J. W. A., M.B., Ch.B. Edin. Demr. Obstetrics and Gynæcol., Clin. Shaw, W. F., M.D. Prof. Lacey, F. H., M.D. Hon. Lectr. Ophthalmology Clin. Lecturers: McNabb, H. H., M.D. Wharton, J., M.A., M.D. Camb. Bride, T. M., M.D. Orthopædics Hon. Clin. Lecturers:

Ollerenshaw, R., M.D., F.R.C.S.

F.R.C.S.

Path.

Platt, H., M.S. Lond., M.D.,

Pathology and Path. Anat., v.

also Dermatol. and Surgical

Baker, S. L., M.R.C.S., L.R.C.P., D.P.H. Lond. Procter Prof. Lecturers: Susman, W., B.A., M.D. Ont. (Morbid Anat. and Histol.). Loveday, G. E., M.A., M.B., B.C. Camb., M.R.C.S., L.R.C.P. (Clin. Path.). Sheehan, H. L., M.D. Asst. Lectr. Kay, W. W., B.Sc., M.B., Ch.B. Asst. Lectr. (Chem. Path.). Demonstrators: Kershaw, J., L.S.A. Lond., L.D.S. Whitehead, R., B.Sc., M.B., Ch.B. Pharmaceutics 5 3 2 2 Grier, J., M.Sc., Ph.C. Sr. Lectr. Brindle, H., B.Sc. Lond., Ph.C. (Pharm. Chem.) Lectr. Roberts, Ivy, M.Sc., Ph.C. Lectr. Duncan, Jeannette, B.Sc., Ph.C. Asst. Lectr. Demonstrators: Fowlds, W. L., B.Sc., Ph.C. Arndell, Leslie, B.Sc. Pharmacology, v. Mat. Med. Radiology Twining, E.W., M.R.C.S., L.R.C.P., D.M.R.E. Camb. Surgery, Clin., v. also Orthop. Burgess, A. H., LL.D. Manit., M.B., Ch.B., M.Sc., F.R.C.S. Prof. Lecturers: Roberts, Chas., M.B., B.S. Lond.,

Roberts, Chas., M.B., B.S. Lond., F.R.C.S.

Buckley, J. P., M.A., M.D. Camb., M.S. Lond., F.R.C.S.

Rayner, H. H., M.B., Ch.B., F.R.C.S.

Surgery, Operative Lecturers:

Hughes, E. E., M.B., Ch.M., F.R.C.S.

Southam, A. H., M.A., M.D., M.Ch. Ox., F.R.C.S.

Surgery, Practical
Roberts, Chas., M.B., B.S. Lond.,
F.R.C.S. Lectr.

Surgery, Systematic Telford, E. D., M.A., B.C. Camb., M.Sc., F.R.C.S. Prof. Lecturers:

Hey, W. H., M.B., Ch.B., F.R.C.S. Morley, J., M.B., Ch.M., F.R.C.S. Graham-Bryce, A., M.D., D.P.H., F.R.C.S. (Regional S.).

Surgical Pathology

Lecturers:

Wrigley, P. R., F.R.C.S.

Wright, G., M.B., Ch.B. Edin., F.R.C.S.

Buckley, J. P., M.A., M.D. Camb., M.S. Lond., F.R.C.S.

Therapeutics, v. Mat. Med.

Tuberculosis

Sutherland, D. P., M.B., B.S. Hon. Clin. Lectr.

Vaccination [Lectr. Chisholm, Catherine, B.A., M.D.

Veneveal Diseases Clin. Instructors:

Reid, W. J. S., M.A., M.D. Aberd., M.R.C.P.

Whitehead, G., M.B., Ch.B.

Wilson, A., F.R.C.S.

Dyson, W., O.B.E., M.D.

Byrd, Eliz. C., M.Sc., M.B., Ch.B. Addis, W. R., M.B., Ch.B. Edin. Burke, E. T., D.S.O., M.B., Ch.B.

Glas.

# Bacteriology and Preventive Medicine

(v. also Pathol.)

Maitland, H. B., M.D. Tor., M.Sc., Prof. M.R.C.S., L.R.C.P. Lecturers:

Downie, A. W., M.D. Aberd.

Heap, H., M.Sc. (San. and Bact. Chem.).

Asst. Lecturers:

McGaughey, C. A., M.R.C.V.S., D.V.S.M.

Kerrin, J. C., M.D., D.P.H. Aberd.

Shortt, W. M., M.Sc.

(Chem.) Demr.

Factory Hygiene Legge, Sir Thomas, M.A., M.D. Ox., D.P.H. Camb.

Public Health Administration

Lecturers:

Butterworth, J. J., M.D., D.P.H. Walker, E. H., M.B., Ch.B., D.P.H.

Sanitary Engineering

Coleman, G. S., D.Sc.(Eng.) Lond., F.R.S.I. Lectr.

School Hygiene [Lectr. Young, M., M.D. Edin., D.P.H.

Veterinary Hygiene

Woods, W., F.R.C.V.S. Lectr.

Vital Statistics

Scholefield, E. H., M.B., Ch.B. Ox., M.R.C.S., L.R.C.P., D.P.H.

Lectr.

### Dentistry

Lecturers:

..... (D. Anat. and Physiol.).

Hutchinson, A. C. W., M.D.S., L.D.S. (D. Mech. and D. Prosthetics).

Houghton, E., L.D.S. Eng. (Pract. Op. D. Surg.).

Graham-Bryce, A., M.D., D.P.H., F.R.C.S. (Regional S.).

Manley, E. B., L.D.S. (D. Histol.). Thompson, Prof. F. C., B.Sc. Lond., D. Met. Shef., M.Sc. (D. Metall.).

Rawsthorne, F., L.D.S. Eng. (D. Mat. Med.).

Baker, Prof. S. L., M.R.C.S., L.R.C.P., D.P.H. Lond.

Hughes, T. M., M.R.C.S., L.R.C.P., L.D.S. Eng. (Orthodontics).

Simms, H., M.D., L.D.S. Eng. (D. Path, and Surg.).

Melland, C. H., M.D. Lond., B.Sc., F.R.C.P. (Med.).

..... (D. Histol.) Demr. Reader.

### Theology

Biblical Criticism and Exegesis
Dodd, Rev. C. H., M.A. Ox., D.D.
Aberd. Rylands Prof.
Wardle, Rev. W. L., M.A. Camb.,

D.D. Dub. (Old Test.)

#### Lecturers:

Parsons, Rt. Rev. R. G., M.A., D.D. Ox. (Bishop of Middleton) (New Test.).

Cheetham, Rev. F. P., M.A. Camb. (New Test.).

Findlay, Rev. J. A., M.A. Camb. (New Test.).

#### Christian Ethics

Hirst, Rev. E. W., M.A. Lond., B.Sc. Ox. Lectr.

### Comparative Religion

Murphy, Rev. J., M.A., B.D., D.Litt. Glas. Prof.

### Early Church History

Grieve, Rev. A. J., M.A. Ox., D.D. Lond. Lectr.

# Ecclesiastical History

Pantin, W. A., M.A. Öx.

Bishop Fraser Lectr.

### Hellenistic Greek

McLachlan, Rev. H., M.A., D.D. Lectr.

#### History of Doctrine

Lecturers:

Townsend, Rev. H., M.A. N.U.I., D.D. Lond.

Brewis, Rev. J. T., B.A., B.D.

MacLeavy, Rev. G. W. M., B.D. Lond., M.A.

#### Philosophy of Religion

Moberly, W. H., D.S.O., M.A. Ox., Litt.D. Prof.

Lee, A., M.A. Camb. Lectr.

Psychology of Religion

Lee, A., M.A. Camb. Lectr.

Semitic Languages

Canney, M. A., M.A. Ox. and Manc. Prof.

Fish, Rev. T., Ph.D. Camb. (Oriental Hist.) Sp. Lectr. Coggan, F. D., B.A. Camb.

Asst. Lectr.

## Technology

Jones, B. Mouat, D.S.O., M.A. Ox., Principal of the College of Tech. and Dean of the Faculty.

### Building Construction

McKay, W. B., M.R.S.I., M.I.Struct.E. Lectr.

Asst. Lecturers :

Wilson, A. V., M.I.Struct.E.

Barrow, F. L., M.Sc. Birm.

Bowles, R. E., B.Sc. Tech., M.I.Struct.E.

### Chemistry, Applied

Kenner, J., D.Sc. Lond., Ph.D. Heid., F.R.S. (Tech. C.) Prof. Lecturers:

Radcliffe, L. G., M.Sc. Tech., F.I.C. (Organ. C.).

Wood, J. K., D.Sc., F.I.C. (Phys. C.).

McCulloch, A., M.Sc. Tech., A.I.C. (Fuels).

Walker, T. K., D.Sc., Ph.D., F.I.C. Howell, O. R., B.Sc. Wales, Ph.D. Camb., Wales, and Zür., D.Sc., F.I.C.

Bradley, W., M.Sc., Ph.D. (Tinc. C. and Dyestuffs).

Handford, C., M.Met. Shef. (Metall. and Assaying).

Neale, S. M., M.Sc. Liv. (Cellulose C.).

Cardwell, D., M.Sc., B.Com., F.I.C. Sp. Lectr.

## Asst. Lecturers:

Chadwick, Marion, M.Sc.Tech. (Foodstuffs).

Craven, May B., M.Sc.Tech., A.I.C.

Hancock, A., M.Sc.Tech., F.I.C.

Lewis, K. G., M.Sc. Wales, A.I.C. (Metall. and Assaying).

Demonstrators:

A.I.C.

Mounfield, J. D., M.Sc.Tech.,

Oakden, J. C., M.A. Camb., M.Sc.

Tech.

Asst. Lecturers:

Morley, A. M., M.Sc.Tech., Ph.D., Brierley, J. C., M.Sc.Tech. A.I.C. Coe, N. W., M.Sc.Tech. Shaw, H., M.Sc.Tech. Tams, B. J., B.Sc. (Eng.) Lond., Bannister, B. A., M.Sc., Ph.D. M.Eng. Shef. Asst. Lectrs. and Demrs. : Derry, L. W., B.Sc. Birm. Carrington, H., D.Sc., M.Sc.Tech. Bloomer, V., M.Sc., A.I.C. (Electro. Grundy, R. H., Ph.D., M.Eng. Liv. Whittaker, J. R., B.Sc.Tech. Chemistry, Textile Engineering, Municipal Lecturers: Lecturers: Scholefield, F., B.Sc. Lond., M.Sc. Coleman, G. S., D.Sc. (Eng.) Lond., Manc. and Leeds, F.I.C. F.R.S.I. (Bleaching, Dyeing, and Johnson, A., M.Sc. Durh., M.R.S.I. Printing). Asst. Lecturers: Bailey, F. W. (Paper-making). Chadwick, A. S., L.R.I.B.A., Hibbert, Eva, M.Sc.Tech. (Ap-M.R.S.I. plied C.) Asst. Lectr. Walton, H., B.Sc.Tech. Preston, J. M., B.Sc. Liv. Industrial Administration (Tex. Chem.) Asst. Lectr. Lecturers: Turner, H. A., M.Sc. Shef. Demr. Fenelon, K. G., M.A., Ph.D. Edin. Engineering, Electrical Garden, D. J., M.A., B.Com. Aberd. Walker, M., M.A. Camb., D.Sc. Yates, M. L., M.Sc.Tech. Lond., M.I.E.E., F.R.S. Prof. Asst. Lectr. Languages, Modern Lecturers: Lectr. Langton, J. L., M.Sc., M.I.E.E. . . . . . . Eaton, R. S., M.A. Asst. Lectr. Moore, A. E., M.Sc.Tech., M.I.E.E. Jackson, H. S., B.A., Asst. Lectr. Clayton, A. E., D.Sc. (Eng.) Lond., M.I.E.E. Mathematics Jackson, W., M.Sc. Lecturers: Asst. Lecturers: Prescott, J., M.A., D.Sc. Glynne, A., M.A. Camb. Bowman, F., M.A. Camb., M.Sc. (Eng.) Freeman, G. F., M.Sc. Tech. Lond. Lowry, H. V., M.A. Camb. Asst. Lecturers: Hanney, E. A., M.Eng. Shef. Barratt, W. S., A.R.C.S.I. Engineering, Mechanical Tilsley, H., B.Sc. (Eng.) Lond. Smith, Dempster, M.B.E., M.Sc. Mining Tech., M.I.Mech.E. Prof. Williams, N. T., B.Sc. Wales, Lecturers: M.I.M.E. Lectr. Boswall, R. O., B.Sc. (Eng.) Lond., **Physics** M.Sc.Tech. Lowery, H., M.Sc., Ph.D. Lond., Threlfall, H., F.R.C.S.I., M.Sc. M.Ed. Leeds Lectr. Tech. Ferguson, R. M., M.Sc. Adamson, A., A.R.C.S., M.Sc. Tech. Lectr. Bevan, T., M.Sc.Tech.

Asst. Lecturers:

Mercer, H. N., M.A. Tor., Ph.D. Lond., D.I.C.

Anderson, W., B.Sc. Glas.

Walmsley, H. P., D.Sc., F.I.P. Demr.

Photographic Technol. [Lectr. Gamble, C. W., O.B.E., M.Sc.Tech.

Textile Industries [Prof. Morton, W. E., M.Sc.Tech., A.T.I.

Lecturers:

Winterbottom, J., M.Sc.Tech. (Spinning).

Hanton, W. A., M.Sc. Tech. (Weaving and Textile Engin.).

Dust, Emily R. (Textile Design).

Turner, H. P., M.A., LL.M. (Factory Law).

Sp. Lecturers:

Bowden, K. W., B.Com. (Yarn and Cloth Markets).

Durand, E. F. (Hosiery Manufac.).
Asst. Lecturers:

Essam, J. M., M.Sc.Tech., A.T.I.

Bennett, G. A., M.Sc.Tech., A.T.I. (Weaving).

Riley, A., B.Sc., M.Sc.Tech. (Textile Engin.).

Spibey, H., M.Sc. Tech. (Spinning).

# Extra-Mural Department

Director of Extra-mural Studies— H. P. Turner, M.A., LL.M.

Staff Tutor — W. Bruce, B.Sc. Lond.

Resident Tutor—A. J. Allaway, B.A. Sheff.

## ASSOCIATED COLLEGES

THE COLLEGE OF TECHNOLOGY became connected with the Univ. of Manchester in 1905 in the Fac. of Techn., the greater part of the work of which is conducted in the College, whose Principal is Dean. The work of the College includes advanced study and research in the subjects specified above and hydraulic experimental work, motor-car engineering, and india-rubber technology. For early history, see Yearbook for 1929.

# Colleges recognized for External Lectures in Theology:

Baptist College, Egerton Hall, Hartley Primitive Methodist College, Moravian College, Fairfield, Unitarian College, and United Methodist College at Manchester; Lancashire Independent College, Whalley Range; Wesleyan College, Didsbury.

Recognized for instruction in Maths., Physics, Chem., and Biol. up to Interm. standard for B.Sc. and B.Sc.Tech.: the HARRIS INSTITUTE, Preston.

For third year of B.Sc.Tech. course in Mining: the Camborne School of Metalliferous Mining.

# GENERAL INFORMATION

The Victoria University of Manchester was reconstituted by Royal Charter in 1903 and Owens Coll. incorporated with it by Act of Parl. in 1904. For early history, see *Yearbook* for 1929.

Most of the buildings, arranged in two quadrangles, and erected from time to time during the past 50 years, are situated in the city. The Departments of Bacteriology and Preventive Medicine and Pathology are  $\frac{1}{2}$  mile distant, adjoining principal hospitals. The athletic ground (30 acres) is at Fallowfield, about  $r\frac{1}{2}$  miles distant.

LIBRARIES. The main (Christie) library (over 240,000 vols.) includes the

private collections of Profs. Freeman and Stanley Jevons and Dr. Christie. Scientific periodicals are taken in by the Univ. in co-operation with the Manchester Literary and Philosophical Society, so that between them all the most important are available for both. The Medical Society's and the Radford Library (65,000 vols.) are housed in the Med. School, and available for students. The John Rylands (310,000 vols.) includes the Althorp Library and the Crawford collection of MSS. It contains one of the most important collections of early printed books in existence. The ancient Chetham Library (100,000 vols.) has valuable mediæval MSS. and printed books of 17th and 18th centuries and a collection of vols. dealing with local history. The Municipal Reference Library (255,000 vols.) is valuable for more recent books and periodicals, and in connexion with it there is a Technical and Science Library (40,000 vols.). The College of Technology Library (17,000 vols.) includes the abridgements of specifications of patents from 1855 to 1925, and is devoted to applied science and technol.

LABORATORIES, ETC. Ample equipment for advanced study and research in all departments; special provision for Electro-Technies, Economic Zoology (including Agric. Entom.) and Botany, Radio-activity, Ionization of Gases, Colloids, and Cancer. Pathological Museum (Hon. Curator—Prof. E. D. Telford, M.A., B.C. Camb., M.Sc., F.R.C.S.). The Manchester Museum, forming part of the Univ. buildings, and containing among other special depts. the Flinders Petrie Egyptol. Collection, is utilized for Univ. teaching in Zool., Bot., and Geol.; it is also used for systematic instruction of Elem. school children. Available for clinical instruction are 4 general Hospitals, I Dental and 7 other special hospls., including the Christie Cancer Pavilion. The Howard Estate Observatory in the Peak District is for investigation of the Upper Atmosphere.

FACULTIES. (1) Arts [including School of Architecture]; (2) Science; (3) Law; (4) Medicine [including Departments of Dental Science, Pharmaceutics, and Bacteriology and Preventive Medicine and Pub. Health]; (5) Music; (6) Commerce and Administration [including Social Study]; (7) Theology; (8) Technology (provided by the Municipal College of Technology); (9) Education [training for work in Secondary, Elementary, and Day Continuation Schools, in Schools for the Deaf, and with Young Children.] Deans of Faculties: (1) Prof. Atkinson (Anc. History); (2) Prof. T. H. Pear (Psychology); (3) Prof. R. A. Eastwood (Law); (4) Prof. J. S. B. Stopford (Anat.); (5) Dr. A. W. Wilcock (Music); (6) Prof. G. W. Daniels (Econ.); (7) Rev. Dr. A. J. Grieve (Theol.); (8) Principal B. Mouat Jones (Technol.); (9) Prof. Bompas Smith (Edn.).

MATRICULATION. See Appendix XX.

Indian Students. Adviser, J. K. Wood, D.Sc. Applications from Indian students for registration should be received, with references as to character and educational qualifications, not later than May 31.

DEGREE COURSES. 3 yrs. (graduates of other approved Univs., 2 yrs.)—B.A., B.Sc., LL.B., Mus.B., B.A. (Com.), B.A. (Admin.), B.D. (after Interm. courses in Arts), B.Sc.Tech.; 5 yrs.—B.A. (Hons. in Archit.), B.D.S.; 6 yrs.—M.B., Ch.B. The B.A. (Com.) and B.A. (Admin.) courses can be completed by attendance on evening lectures.

Hons. students of mod. foreign langs. may count attendance on approved courses for a term at a foreign Univ. as equivalent to attendance at Manc.

Minimum attendance in the Univ. for graduation—3 yrs. Minimum attendance for Bachelorship in 2 Faculties—5 yrs.

HIGHER DEGREES. Open to Bachelors of 1 yr. standing—M.A., M.Sc. (2 yrs. if graduates of other Faculties), Ch.M., M.D., M.D.S., M.A. (Com.), M.A.

(Admin.), M.Sc.Tech.; 2 yrs.—LL.M., M.Ed.; 4 yrs.—D.Sc., LL.D., Mus.D., D.D. Open to Masters or Doctors of Philosophy of the Univ. only: Litt.D.

Open to graduates of other approved Univs. through research in Manc. during 2 (non-graduates 3) yrs.-M.A., M.Sc., LL.M., M.A. (Com.), M.A. (Admin.), M.Sc.Tech., M.Ed. (open only to graduates). Graduates of other approved Univs. of 4 yrs.' (D.D. 6 yrs.') standing who have obtained the degree of Master or one substantially equivalent thereto and spent 2 yrs. in study or research in Manc. may qualify for the D.Sc., LL.D., D.D.

The Ph.D. differs from the Litt.D. and D.Sc. in requiring a definite course of study, and is of a lower standard, though higher than the M.A., M.Sc., and M.Sc.Tech. (v. p. 18).

DIPLOMAS. Geog. (grads.), r yr. course; D.V.S.M., open to M.R.C.V.S. only, 12 mos.; Psych. Med. 1 yr., including 2 terms at the Univ.; D.P.H. I yr.; Teacher's (grads.), I yr.; L.D.S., 4 yrs.; Dp. Bact. (I yr. post-grad.); Dp. Path. (r yr. post-grad.); Social Study (2 yrs.; approved grads. and holders of Certif. in Pub. Admin., 1 yr.).

CERTIFICATES. Engin., 3 yrs.' course; Applied Chem., 3 yrs.; Archit., 5 yrs.; Mining; Factory or School Hygiene (subsequent to obtaining D.P.H.); Higher Commercial, 2 yrs. (grads. 1 yr.); Public Administration, 2 yrs; Theol., 3 yrs.; Biblical Knowledge, r yr.; Tech. (Assoc. Coll. Tech.), 3 yrs.; Tech. (Distinction), I yr. after Cert. in Tech.; Photog. Tech., 2 yrs.; Indust. Admin., I yr. (grads. or holders of Cert. in Tech.); Certif. for Teachers of the Deaf, I yr. (grads, and certificated teachers). Candidates for certificates are required, before entering on the course, to pass or obtain exemption from an entrance examn.

Certif. in Mining and the B.Sc.Tech. in Mining are accepted by Govt. in lieu of 2 out of 5 yrs.' practical experience for Mine Manager's Certif.

Special Courses on Tuberculosis for Med. and Vet. practrs.

Scholarships, etc., for Graduates. A considerable number are offered every year by the Univ., most of them reserved for its own graduates, but some—in Anatomy, £150; Econ., £100 and £120; Engin., two of £200 each; Bot. or Zool., £200; Diseases of Children, £100; History, £50; Local Govt., £50; Physics, £200; Physiol., £90; Cancer Research, £300; Prev. Med., £300; Mun. Engin. or Bact. and Prev. Med., £150; Psychological Med., £150—are open to foreign students; others—in Cotton Industry, £100; History, £50; Agric. Zool., £74—are open to British subjects who have graduated at other Univs. Honorary Research Fellowships and Research Studentships, entitling the holders to the use of facilities for research either free or at greatly reduced fees, are also awarded. See also App. XXIII. passim.

FEES. Matricn., £2. Tuition, per session, including Students' Union and Athletic Union fees: for B.A. course, 301 gs. (Hons. in Archit., first 3 yrs. 411 gs. per session, 4th and 5th yrs. 28½ gs. per session); B.Sc., 30½ to 45½ gs.; M.B., Ch.B. (5 sessions), 154½ gs., plus Hospl. fees, 77 gs.; LL.B. (3 sessions), 40 gs.; B.D., about 15 gs. (plus Registration fee of 3 gs. per session); B.A. (Com.), B.A. (Admin.), 20 gs. to 24 gs.; Mus.B., about 20 gs.; B.D.S., 96 gs., plus Hospl. fees, 175 gs.; L.D.S., 86 gs., plus Hospl. fees, 135 gs.; B.Sc. Tech., £40-£60; Teacher's Dipl., £35:10:6. Examn. fees: Med., 32 gs., others (Interm. and Final) for first degrees about 6 gs. (B.Sc., 4 to 5 gs.). Graduation fees, 8 gs. (Doctorate, 5 gs., except M.D., 9 gs., Mus.D., 8 gs., Ph.D., £5).

Note. Fees for Women students, in the case of B.A., B.Sc., and Teacher's Diploma are ½ guinea per session less than above figures; in M.B., Ch.B., 2½ gs.

less, and in B.D.S. and L.D.S., 11 gs. less.

Research fees, 7 to 10 gs. per session in Arts, Commerce, and Law; Educn., 4 gs.; higher fees for science students.

HOSTELS. For men: Hulme Hall (Warden), £70 to £90 (for 25 weeks); Dalton Hall (Principal), £108 (for 31 weeks); St. Anselm's Hall (Warden), £80 (for 30 weeks); Lancashire Independent College (Principal), £81 (full Univ. terms); Unitarian College (Principal), £90 (full Univ. terms). For women (122): Ashburne Hall (Warden), 64 to 70 gs.; Lees Hall (Warden) (both under Ashburne Hall Delegacy); Langdale Hall (Warden), chiefly for women training students, whose fees are £36, private students £70; Ellis Llwyd Jones Hall (Warden), special hostel for students in training as teachers of the deaf, £66 to £70; St. Gabriel's Hall (Warden) (for Rom. Catholic women students), £55 to £65.

All PAST AND PRESENT MEMBERS of the Univ. are eligible for membership of the "Old Owensian Assocn.," which publishes periodically a register of members with occupations and addresses and a *Journal* (thrice yearly).

ADULT EDUCATION. The Committee for the organization of the Extramural work of the Univ. and the Joint Committee for Tutorial Classes are responsible for the provision of facilities for Adult Education at the Univ. itself, and at other Centres. Public Lectures, Univ. Extension Courses, Tutorial Classes for Workpeople, and other Classes for adult students are arranged, and Tutors and Lectures are appointed.

Publications. (1) Periodical: Calendar (Sept.), 5s. and 3s.; Prospectus of Advanced Studies; Examn. Papers, 9d. to 1s. 9d. a set, by Faculties. The French Quarterly, 3s.; Bulletin of John Rylands Library; Technology (pub. at Coll. of Tech.); Journal of Manc. Egyptian and Orient. Soc.; Pubns. of Chetham Society, Manchester; Pubns. of Brit. Soc. of Franciscan Studies. Students' Pubns.: The Serpent (magazine), The Circle (Literary), Science Fed. Journal, Medical School Gazette. Departmental Prospectuses (April-May). (2) The Victoria University of Manchester; a short historical and descriptive account. The Univ. Press, 1930.

Histories: "The Owens College: its Foundation and Growth, and Connexion with the Victoria Univ.," by Joseph Thompson. Manchester, J. E. Cornish, 1886. "The Owens College," by P. J. Cornish. Manchester, J. E. Cornish, 1900.

# THE YEAR 1930-31

GRANTS. Annual Treasury Grant increased by £12,000. Manchester Corporation Grant increased to £10,000.

Benefactions. £3872 on account of bequest of late Sir Drummond Fraser for Lectureship in Banking.

New Buildings. New extension of Physics Labs. completed. Extension of Ashburne Hall (women) for additional 33 students begun.

New Departments and Posts. Chair of Mod. Hist. restored. Dept. for Training Teachers of Deaf extended to increase facilities for research and research asst. appointed.

OTHER DEVELOPMENTS. Co-operation with Royal Infirmary and Radium Institute to form National Radium Centre in Manchester. Loan of nearly 2 grams of Radium from the Radium Commission.

CHANGES IN REGULATIONS. Hons. Sch. of German remodelled. Regulations revised for Diplomas in Pub. Health and in Bacteriol. Institution of degree and certif. courses in Building in Fac. of Technol.

EXTRA-MURAL WORK. 49 Tutorial classes and 13 preparatory classes in 38 different towns. 13 Extension Courses at Univ. and outside centres. Summer Sch. at Bangor. Co-operation continued with county and local education committees to provide lectures for teachers, public, and schools. Introduction of Area Resident Tutors and appointment of A. J. Allaway to Bacup Area.

VISITS OF TEACHERS FROM OTHER UNIVERSITIES AND OF MEMBERS OF STAFF TO OTHER UNIVERSITIES. Prof. Bragg at Univ. of Munich during Lent term. Prof. Rebora in Italy (Michaelmas term), and Miss Crump in France during summer term. Mr. Mouat Jones in Russia in Michaelmas Term investigating Technical Education. Prof. R. Guyot (Sorbonne) lectured in Oct. 1930 in Fac. of Arts and publicly under scheme of inter-exchange.

DEATHS. Hon. Prof. C. H. Herford (English); Prof. J. S. Dunkerly (Zool.); H. S. Ferguson (Accounting); A. E. Brindley (Pub. Health Administration).

RESIGNATIONS. Dr. A. Rée (Deputy Treasurer since 1927); Prof. J. Shaw Dunn, on appt. to St. Mungo Chair of Pathol. in Glasgow Univ.; Prof. L. A. Willoughby, on appt. to Chair of German, Univ. Coll., London; W. Beare, on appt. to Chair of Latin in Bristol Univ.; G. W. Keeton, on appt. to Readership in Eng. Law in Univ. of London; Dr. J. A. Bowie, on appt. as Principal of College of Econs. and Business Administration, Dundee; F. W. Halliday, on appt. to Headship of German Dept., Univ. Coll., Swansea.

RETIREMENTS. Prof. E. Fiddes (Hist.); Prof. W. J. Sedgefield (Eng. Lang.); Dr. G. H. Lancashire (Dermatol.).

Honorary Degrees. *LL.D.*—Lord Derby, Arthur Harden, Sir John A. Simon. *Litt.D.*—Henry Guppy. *D.D.*—Rev. Canon B. H. Streeter. *M.A.*—William Melland, F. P. Nathan. *M.Sc.*—A. B. Ritchie.

STUDENTS. Full-time, 2359; part-time, 373. These numbers include 437 graduates.

Degrees. D.Sc., 5; Mus.D., 3; M.D., 8; Ph.D., 7; M.A., 13; M.Sc., 25; LL.M., 1; Ch.M., 1; M.A. (Com.), 3; M.Sc.Tech., 14; M.Ed., 3; B.A., 158; B.Sc., 147; LL.B., 14; M.B., Ch.B., 29; Mus.B., 1; B.A. (Com.), 26; B.A. (Admin.), 15; B.D., 7; B.Sc.Tech., 49.

# UNIVERSITY OF OXFORD

- CHANCELLOR—Right Hon. EDWARD, VISCOUNT GREY, D.C.L., Hon. Fellow of Balliol College.
- HIGH STEWARD—Rt. Hon. LORD SANKEY OF MORETON, G.B.E., B.C.L., M.A., Hon. D.C.L., Hon. Fellow of Jesus College.
- VICE-CHANCELLOR-F. HOMES DUDDEN, D.D., Master of Pembroke.
- Proctors—A. B. Burrowes, M.A., Pemb.; H. W. House, M.A., Queen's.
- REPRESENTATIVES IN PARLIAMENT (BURGESSES OF THE UNIVERSITY)—Rt. Hon. Lord Hugh R. H. Cecil, M.A., Hon. D.C.L. Hertford; Sir Chas. W. C. Oman, M.A., Hon. D.C.L. All Souls.
- ASSESSOR OF THE CHANCELLOR'S COURT—A. E. W. HAZEL, K.C., B.C.L., M.A., Principal of Jesus.
- Public Orator-A. B. Poynton, M.A., Hon. D.Litt. Univ.
- Bodley's Librarian—H. H. E. Craster, M.A., D.Litt. Ball.
- KEEPER OF THE ARCHIVES-S. GIBSON, M.A. Cath.
- REGISTRAR-D. VEALE, C.B.E., M.A. C.C.C.
- SECRETARY OF FACULTIES—H. M. MARGOLIOUTH, M.A. Oriel.
- ASSISTANT REGISTRAR-S. CALDWELL, M.A. Wadham.

#### COLLEGES

ALL Souls College	E	Warden	F. W. Pember, D.C.L.
Balliol ,,		Master	A. D. LINDSAY, C.B.E., M.A.
Brasenose "		Principal	C. H. Sampson, M.A.
CHRIST CHURCH		Dean	Very Rev. H. J. WHITE, D.D.
CORPUS CHRISTI CO	LLEGE	President	P. S. Allen, M.A., D.Litt.
EXETER	,,	Rector	R. R. Marett, M.A., D.Sc.
HERTFORD	,,	Principal	C. R. M. F. CRUTTWELL, M.A.
Jesus	<i>.</i> .	,,	A. E. W. HAZEL, B.C.L., M.A.
Lincoln	,,	Rector	J. A. R. Munro, M.A.
Magdalen	,,	President	G. S. GORDON, M.A.
Merton	,,	Warden	T. BOWMAN, M.A.
New	,,	,,	Rt. Hon. H. A. L. FISHER, M.A., Hon. D.C.L.
ORIEL COLLEGE		Provost	W. D. Ross, M.A.
PEMBROKE COLLEGE	:	Master	Rev. F. Homes Dudden, D.D.

Queen's College,	Provost	Rev. E. M. WALKER, M.A.
St. John's ,,	President	Rev. H. A. JAMES, C.H., D.D.
TRINITY ,,	,,	Rev. H. E. D. BLAKISTON, D.D.
University "	Master	Sir Michael E. Sadler, K.C.S.I., C.B., M.A.
Wadham ,,	Warden	J. F. Stenning, M.A.
Worcester ,,	Provost	Rev. F. J. Lys, M.A.
ST. EDMUND HALL	Principal	A. B. EMDEN, M.A.
Keble College (New Foundation)	Warden	Rev. B. J. Kidd, D.D.
St. Catherine's Society	Censor	Rev. V. J. K. Brook, M.A.

## PRIVATE HOSTELS

CAMPION HALL	Licensed	Master	Rev. E. G. O. Vignaux, M.A.
St. Benet's Hall	,,	,,	Rev. P. J. McCann, M.A.
St. Peter's Hall	,,	,,	Rev. C. M. CHAVASSE, M.A.

# RECOGNIZED SOCIETIES OF WOMEN STUDENTS

Lady Margaret Hall	Principal	Miss L. Grier, M.A.
Somerville College	,,	Miss H. Darbishire, M.A.
St. Hugh's College	,,	Miss B. E. GWYER, M.A.
ST. HILDA'S COLLEGE	,,	Miss J. de L. Mann, M.A.
SOCIETY OF OXFORD HOME	,,	Miss Grace E. Hadow, M.A.
STUDENTS		

# PROFESSORS, READERS, LECTURERS, DEMONSTRAT-ORS, ETC.

Agriculture, v. infra Rural Econ.

Anatomy, v. also Zoology, Med.
Thomson, A., M.A. Ch. Ch.
Dr. Lee's Prof.
Heaton, T. B., D.M.
Reader.
Dodds-Parker, A. P., B.M., M.A.
Magd. (Applied A.)
Reader.
Odgers, P. N. Blake, M.Ch., D.M.
Linc.
Reader.
Carleton, Mrs., M.A., O.H.S.
Demr.
Blackwood Miss B. M. B.Sc.

Blackwood, Miss B. M., B.Sc., M.A. Som. (Ethnol.) Demr. Anglo-Saxon

Tolkien, J. R. R., M.A. Pemb. Rawlinson and Bosworth Prof.

Buxton, L. H. D., M.A., D.Sc. Exe. Anthropology, Social [Reader. Marett, R. R., M.A., D.Sc. Exe. Matthews, Rev. W. R., D.D. Lond. Wilde Lectr. in Nat. and Comp. Relig. Archæology, v. also Oriental Langs. and Papyr. Beazley, J. D., M.A. Linc. (Classical A. and Art) Lincoln Prof. Casson, S., M.A. New (Classical A.) Reader. Lorimer, Miss H. L., M.A. Som. (Homeric A.) Lectr. Aramaic, v. Oriental Langs.

Anthropology, Physical [Reader.

Art

Gleadowe, R. M. Y., M.A. New (Fine Art) Slade Prof. Rutherston, A. (Drawing)

Ruskin Master.

Assyriology, v. Oriental Languages

A stronomy

Plaskett, Prof. H. H. Savilian Prof. Knox-Shaw, H., M.A., D.Sc. Trin. Radcliffe Observer.

Bellamy, F. A., Hon. M.A.

First Asst.

Bellamy, Ethel F. Asst. Fotheringham, J. K., M.A., D.Litt. Magd.

Reader in Ancient Ast.

Hughes, J. S., M.A. New Coll.

Seismol. Asst.

Bio-Chemistry [Whitley Prof.
Peters, R. A., M.C., M.A. Trin.
Whitley, E., M.A. Trin. Demr.
Walker, E., D.Phil. St. Joh. Demr.
Carter, C. W., B.M., M.A. Queen's
Demr.

Botany, v. also Rural Econ. Tansley, A. G., M.A. Magd., F.R.S. Sherardian Prof. Clapham, A. R., M.A. Magd.

Demr.
Wilkins, W. H., M.A. Keb. Demr.
James, W. O., D.Phil. Oriel Demr.
Druce, G. C., M.A., D.Sc. Magd.
Herbarium Curator.

Celtic

Fraser, J., M.A. Jes. Jesus Prof.

Chemistry [Waynflete Prof. Robinson, R., M.A. Magd., D.Sc. Manc., F.R.S.

Soddy, F., M.A. Exe., F.R.S. (Phys. Chem.) Dr. Lee's Prof. Sidgwick, N. V., M.A. Linc., F.R.S. Reader.

Lectrs. :

Chapman, D. L., M.A. Jes. (Phys. Chem.).

Russell, A. S., M.A. Ch. Ch. (Inorg. C.).

Hinshelwood, C. N., M.A. Trin. (Chem. Dynamics).

Demrs.:

Hope, E., M.A. Magd. Hammick, D. L., M.A. Oriel.

Plant, S. G. P., B.Sc., M.A., D.Phil. Magd.

Taylor, T. W. J., M.A. B.N.C. Gulland, J. M., M.A. Ball.

Baker, W., M.A. New Coll.

Smith, J. C., M.Sc. N.Z., Ph.D.

Manc., B.Sc. New Coll. Lambert, B., M.A., D.Sc. Mert.

Aldrichian Prælector. Walden, A. F., M.A. New Coll.

Hartley, E. G. J., M.A. Ch. Ch. Brewer, F. M., B.Sc., M.A. Linc.

Classics, v. also Archæol.

Murray, Gilbert, M.A., D.Litt. Ch. Ch. (Greek) Reg. Prof. Tod, M. N., M.A. Or. (Greek Epi-

graphy) Reader. Clark, A. C., M.A. C.C.C. (Latin)

Corpus Prof. Lobel, E., M.A. Qu. Research Student (Gk. Lit.).

Diplomatic [Reader, Galbraith, V. H., M.A. Ball.

Divinity, v. Theology

Economics, v. also Pol. Econ. Cole, G. D. H., M.A. Univ. Reader. Mitchell, W. C., M.A.

George Eastman Visiting Prof.

Education [Dir. of Training. Smith, G., M.A. Trin.

Keatinge, M. W., M.A., D.Sc. Exe. Reader.

Talbot, Elfrida M., M.A. St. Hu.
Lectr. and Tutor to
Women Students, and
Principal of the
Women's Hostel.

Asst. Lectrs. and Tutors: Icely, H. E. M., M.A. B.N.C. Jones, L. G. E., M.A. Ball.

Egyptology, v. Oriental Langs.

Embryology, v. Zool.

Engineering Science, v. also Surveying

Southwell, R. V., M.A. Camb., F.R.S. Prof.

Moullin, E. B., M.A. Magd. Reader. Binnie, A. M., M.A. Balliol Demr. Belfield, V., M.A. B.N.C., M.A. Camb. Demr.

English, v. also Anglo-Saxon, Poetry

Smith, D. Nichol, M.A. Edin., Hon. D.Litt. Dur., M.A. Mert.

(E. Lit.). Merton Prof. Wyld, H. C. K., B.Litt., M.A. Mert. (E. Lang. and Lit.)

Merton Prof. Simpson, P., M.A. Or.

Simpson, P., M.A. Ur.

Goldsmiths' Reader.
Onions, C. T., M.A., Hon. D.Litt.
Magd. Reader in Eng. Phil.
Brett-Smith, H. F. B., M.A. C.C.C.

Reader in Eng. Lit.

Darbishire, Miss H., M.A. Som.

Wrenn, C. L., M.A. Qu. (E. Lang.) Lectr.

Everett, Miss D., M.A. L.M.H. (Middle Eng.) Lectr.

Forestry, v. also Surveying, Rural Econ.

Troup, R. S., M.A., D.Sc. St. J., F.R.S. Prof.

Demrs.:

Bourne, R., M.A. Trin. (F. Management).

Chalk, L., M.A. Univ. (Structure, etc. of Wood).

Day, W. R., B.Sc., M.A. Exe. (Mycol. and Pathol.).

Chrystal, R. N., D.Sc. Edin., M.A. (Entomol.).

Lloyd, A. H., M.C., M.A. Exe. (F. Utilization and Engin.).

Jacks, G. V., B.Sc., M.A. Ch. Ch. (Soil Sci.).

Imperial Forestry Institute: Director—Prof. R. S. Troup.

Lectrs.:

The Demrs. above.

Anderson, M. L., D.Sc. Edin. (Silvicul.).

Aldrich-Blake, R. F. N., M.A. Magd. (Silvicul.).

Davy, J. Burtt, M.A. Univ. (Syst. F. Bot.).

Hoyle, A. C., B.Sc., M.A. Pem. (Syst. F. Bot.).

Brown, J. M. B., B.Sc. Belf. (F. Entomol.).

Simmons, C. E., M.A. St. J. (F. Econ.).

Desch, H. E., B.A. Linc. (Structure, etc. of Wood).

Chattaway, Mary M., B.Sc., M.A. St. Hugh's. (Structure, etc. of Wood).

Peace, T. R., B.A. (Mycol. and Pathol.).

Williamson, H. S., M.A. Ch. Ch. (F. Law).

French

Rudler, G., Dr. ès L. Paris, M.A. All. S. (Fr. Lit.) Foch Prof.

Berthon, H. E., M.V.O., M.A. Wadh. Reader.

Pope, Miss M. K., M.A. Som. (Fr. Philol.) Reader.

Vinaver, E., B.Litt., M.A. Linc. (Fr. Lit.) Reader. Lectrs.:

Moore, W. G., M.A. Magd.

Skipworth, Miss M. G., M.A. L.M.H.

Taylor, F. A., M.A. Ch. Ch. Genetics, v. Zool.

Geography, v. also Surv.

MacMunn, Nora E., M.A. Soc.O.H.S.

(Regional G.) Lectr.

Baker, J. N. L., B.Litt., M.A. Jes. Tutors: Lectr.

Kendrew, W. G., M.A. Cath.

Buxton, L. H. D., M.A., D.Sc. Exe. (v. Anthrop.).

Geology [Prof. Sollas, W. J., M.A. Univ., F.R.S.

Demrs.:

Wade-Gery, H. T., M.A. Wadh.

Douglas, J. A., M.A., D.Sc. Keb. (Greek Hist.). Bayzand, C. J., M.A. Cath. History, Colonial [Beit Prof. Sandford, K. S., M.A., D.Phil. Coupland, R., M.A. All S. Univ. (Pleistocene G.). Harlow, V. T., B.Litt., M.A. B.N.C. [Savilian Prof. Geometry Beit Lectr. Titchmarsh, E. C., M.A. New Coll. History, Eccl., v. Theology German [Taylor Prof. History, Econ., v. Pol. Econ. Fiedler, H. G., M.V.O., M.A. Qu. History, English (G. Lang. and Lit.) Feiling, K. G., M.A. Ch. Ch. (1931-Boyd, J., M.A., B.Litt. St. Cath. Reader. 1932) Ford's Lectr. Bostock, J. K., B.Litt., M.A. History, Indian Wadham Lovett, Sir H. Verney, K.C.S.I., Lectr. M.A. Worc. Greek, Byzantine and Modern, Reader. Lang. and Lit. History, Military, v. Milit. H. Dawkins, R. M., M.A. Exe. History, Modern, v. also Dipl. Bywater & Sotheby Prof. Powicke, F. M., M.A. Or., Litt.D. Greek and Latin Lit. Liv., F.B.A. Reg. Prof. Lectrs.: Oman, Sir Charles W. C., K.B.E., Bailey, C., M.A. Ball. M.A., Hon. D.C.L. All S. Hall, F. W., M.A. St. J. Chichele Prof. Barber, E. A., M.A. Exe. Lectrs.: Denniston, J. D., M.A. Hert. Jamison, Miss E. M., M.A. Marg. Greek Lit. H. Poynton, A. B., M.A., D.Litt. Poole, A. L., M.A. St. J. Univ. Lectr. Weaver, J. R. H., M.A. Trin. Bowra, C. M., M.A. Wadh. Lectr. Legg, L. G. W., M.A. New Coll. Feiling, K. G., M.A. Ch. Ch. Hebrew, v. Oriental Langs. Edwards, J. G., M.A. Jesus. History, American Hodgkin, R. H., M.A. Queen's. McElroy, R. M., M.A. Queen's Ogg, D., M.A. New Coll. Harold Vyvyan Harms-Jones, Idris D., M.A. Mert. worth Prof. Lennard, R. V., M.A. Wadh. History, Ancient, v. also Archæol. Clarke, Miss M. V., M.A. Som. Anderson, J. G. C., M.A. B.N.C. Sumner, B. H., M.A. Ball. (E. Camden Prof. European). Myres, J. L., M.A. New Coll. Thompson, J. M., M.A. Magd. Wykeham Prof. (Mod. French). Lectrs.: Keir, D. L., M.A. Univ. (Engl. Stevenson, G. H., M.A. Univ. Const.). Collingwood, R. G., M.A. Pemb. Jolliffe, J. E. A., M.A. Keble (Rom. Hist.). (Engl. Mediæval). Last, H. M., M.A. St. J. (Rom. Hist.). Italian Parker, H. M. D., M.A. Magd. Foligno, C., M.A. Magd. (Rom. Hist.). Serena Prof. Macgregor, D. C., M.A. Ball. Vincent, E. R. P., M.A. Ch. Ch. (Greek Hist.). Lectr.

Law, v. infra Mure, G. R. G., M.A. Mert. Logic [Wykeham Prof. Philosophy, Expl.Joachim, H. H., M.A. New Coll. Lindemann, F. A., M.A. Ch. Ch., F.R.S. Lee's Prof. Mathematics, Pure Dobson, G. M. B., M.A., D.Sc. Dixon, A. L., M.A. Magd., F.R.S. Linc., F.R.S. Waynflete Prof. Reader (Meteorol.) & Demr. Mathematics [Rouse Ball Prof. Milne, E. A., M.A. Trin., F.R.S. Philosophy, Mental,also v. Pidduck, F. B., M.A., D.Sc. Corp. Logic (Applied Maths.) Reader. Brown, Wm., D.M. Ch. Ch. Wilde Reader. Chaundy, T. W., M.A. Ch. Ch. Lectr. Philosophy, Moral, & Metaphys. Hodgkinson, J., M.A. Jesus Lectr. Smith, J. A., M.A. Magd. Poole, E. G. C., M.A., D.Phil. New Waynflete Prof. Coll. Lectr. Philos., Moral Medicine, v. infra Prichard, H. A., M.A. C.C.C. White's Prof. Meteorology, v. Philosophy Expl. Philos., Natural Military History Love, A. E. H., M.A., D.Sc. Qu., Swinton, Maj.-Gen. Sir Ernest D., F.R.S. Sedleian Prof. K.B.E., C.B., D.S.O., M.A., Physics . Chichele Prof. Townsend, J. S. E., M.A. New Mineralogy, v. also Crystal. Coll., F.R.S. Wykeham Prof. Bowman, H. L., M.A., D.Sc. Demrs.: Waynflete Prof. Magd. Lattey, R. T., B.Sc., M.A. Trin. Spiller, R. C., M.A. Cath. Demr. Gill, E. W. B., B.Sc., M.A. Mert. Music[Heather Prof. Morrell, J. H., M.A. Magd. Allen, Sir H. P., M.A., D.Mus. New Biggs, H. F., M.A. Trin. Stewart, H. C., M.A., D.Mus. McCallum, S. P., M.A., D.Phil. Magd. New Coll. Choragus (Asst. to Prof.). Keeley, T. C., M.A. Wad. Numismatics Donaldson, R. H., M.A. Univ. [Reader. Milne, J. G., M.A., D.Litt. C.C.C. Physiology, v. also Medicine Oriental Languages, v. infra Sherrington, Sir Charles S., O.M., G.B.E., M.A., D.Sc. Magd. Palæography and Lond., F.R.S. Lowe, E. A., M.A., C.C.C. Reader. Waynflete Prof. Papyrology Douglas, C. G., B.Sc., D.M. St. J. Hunt, A. S., M.A., D. Litt. Qu. Prof. (Gen. Metabolism) Demr. Philology, Comparative [Prof. Liddell, E. G. T., D.M. Trin. Demr. Braunholtz, G. E. K., M.A. Worc. Carleton, H. M., B.Sc., M.A., Philosophy D.Phil. New Coll. (Animal Lectrs.: Histol.) Demr. Carritt, E. F., M.A. Univ. Cooper, Sybil, M.A. St. Hild. Joseph, H. W. B., M.A. New Coll. Demr. Collingwood, R. G., M.A. Pemb. Poetry Ross, W. D., M.A. Or. de Sélincourt, E., M.A., D.Litt. Price, H. H., B.Sc., M.A. Trin. Univ. Prof.

Political Econ. Demrs.: Macgregor, D. H., M.A. All S. de Beer, G. R., B.Sc., M.A. Mert. Drummond Prof. Tenkinson Lectr. Clark, G. N., M.A. All S. (Econ. Comp. and Exper. Chichele Prof. Embryol. Hist.) Lipson, E., M.A., New Coll. (Ec. Elton, C. S., M.A. New Coll. Hist.) Tucker, B. W., M.A. Magd. Reader. Harrod, H. R. F., M.A. Ch. Ch. Baker, J. R., M.A., D.Phil. New Lectr. Coll. Hargreaves, E. L., M.A. Or. Lectr. Ford, E. B., B.Sc., M.A. Wadh. Political Theory and Institus. Law Adams, W. G. S., M.A. All S. Civil[Reg. Prof. Gladstone Prof. De Zulueta, F., D.C.L. All S. Butler, Miss C. V., M.A., O.H.S. (Mod. Pol. Organ.) Lectr. Criminal, and Evidence Stallybrass, W. T. S., O.B.E., Religion, v. Theology D.C.L., B.N.C. Reader. Romance Lang. English Ewert, A., M.A. Trin. Prof. Holdsworth, Sir W. S., K.C., D.C.L. All S. Vinerian Prof. Rural Economy, v. infra Hazel, A. E. W., C.B.E., B.C.L., M.A. Jes., K.C. Slavonic Studies All Souls Reader. Konovalov, S., B.Litt. Exe. Lectr. Fifoot, C. H. S., M.A. Hert. Lectr. Landon, P. A., M.A. Trin. Lectr. Spanish Entwistle, W. J., M.A. Aberd. Equity King Alfonso XIII. Prof. Hanbury, H. G., B.C.L., M.A. Kolkhorst, G. A., M.A. Exe. Linc. Lectr. Reader and Lectr. Indian Alonso, D., D.Phil., D.Litt. Madrid Lindsay, Sir Benjamin Reader. Internat., and Diplomacy Surveying (for Engin., Rural Ec., Brierly, J. L., O.B.E., D.C.L. All Forestry, Geog. Students, and S. Chichele Prof. Trop. Admin. Services probrs.). Miles, Sir John C., B.C.L., M.A. Tandy, Lt.-Col. M. O., D.S.O., Mert. O.B.E., M.A. Instr. (Comp. Legal Hist.) Lectr. Internat. (Private) Lectr. Theology, v. infra Cheshire, G. C., D.C.L., M.A. Exe. Thermodynamics International Relations Egerton, A. C. G., M.A. Ball., Zimmern, A. E., M.A. New Coll. F.R.S. Reader. Montague Burton Prof. Jurisprudence [Prof. Zoology and Comp. Anat., v. also Goodhart, A. L., D.C.L. Univ. Rural Econ. [All Souls Reader. Roman Goodrich, E. S., M.A., D.Sc. Mert., Lawson, F. H., M.A. F.R.S. Linacre Prof. [Rhodes Prof. Poulton, E. B., M.A., D.Sc. Jes., Roman-Dutch F.R.S. Hope Prof. Lee, R. W., D.C.L. Ball.

### Medicine

(for subjects of the first 2 yrs.—Anat., etc., v. supra)

Anatomy, Morbid

Gibson, A. G., D.M. Ch. Ch.

Reader.

Clinical Physiology

Priestley, J. G., D.M. Ch. Ch. Reader and Demr.

Medicine

Buzzard, Sir E. Farquhar, Bt., K.C.V.O., D.M. Magd.

Reg. Prof. Waters, W. A. P., D.M., B.N.C. Litchfield Lectr.

Ophthalmology

Adams, P. E. H., B.M., M.A. Exe. Margaret Ogilvie's Reader. Pathology, v. also Anat. [Prof. Dreyer, G., C.B.E., M.A. Linc. Walker, E. W. A., D.Sc., D.M. Univ. Vollum, R. L., M.A., D.Phil. Linc. Demr.

Pharmacology

Gunn, J. A., M.A. Ball. Prof.
MacKeith, M. H., D.M. Magd.,
Dean of Med. Sch. Demr.
Franklin, K. J., D.M. Or. Demr.
Surgery

Rose-Innes, R. H., M.B., Ch.B. Edin. Litchfield Lectr.

## Oriental Languages

Arabic

Margoliouth, D. S., M.A., D.Litt.
New Coll. Laudian Prof.
Aramaic [Reader.
Stenning, J. F., C.B., M.A. Wadh.
Assyriology [Shillito Reader.
Langdon, S., M.A. Jes. Prof. &
Bengali

Thompson, E. J., M.A. Or.

(I.C.S. Delegacy) Lectr.

Burmese

Rigg, A. E., M.A. Corp. Lectr.

Chinese

Soothill, W. E., M.A. Trin. Prof.

Egyptology [Prof. and Reader. Griffith, F. Ll., M.A. Qu.

Hebrew

Cooke, Rev. Canon G. A., D.D. Ch. Ch. Reg. Prof. Driver, G. R., M.A. Magd. (Semitic

Phil.) Reader.

Persian and Marathi

Seddon, C. N., M.A. Ball. Lectr.

Sanskrit [Boden Prof.]

Thomas, F. W., C.I.E., M.A., Ph.D. Ball., F.B.A.

Tamil and Telugu

Roberts, S. G.

Urdu and Hindi

Dewhurst, R. P., M.A. Ball. Lectr.

Lectr.

## Rural Economy

Watson, J. A. S., M.A. St. J. Sibthorpian Prof.

Skilbeck, D., M.A. Joh. Demr. Ellis, J. C. B., M.A. Jes.

(Physics & Chem.) Demr.

Cunliffe, N., M.A. Wadh.

(Agr. Entomol.) Demr.

Agr. Botany [Demr. Bancroft, Helen, M.A. Marg. H.

Agr. Chemistry [Reader. Morison, C. G. T., M.A. Ball.

Clarke, G. R., B.Sc., M.A. Or. Advisory Chemist.

Agr. Economics, v. also Farm Acctey.

Agr. Econ. Research Inst.

Orwin, C. S., M.A. Ball. Director. Bridges, A., M.A. Linc.

Deputy Director.

Research Officers:

Dixey, R. N., B.A. St. Joh.; Prewett, F. J., M.A. Ch. Ch.; Lee, J. R., B.Sc. Leeds; Maxton, J. P., B.Sc., M.A. Glas.

Assistants:

Stilgoe, H. C., B.A. Ch. Ch.; Messer, M., B.A. St. Joh.; Murray, K. A. H., B.Sc. Edin., Ph.D. Cornell. Agr. Economics and History
Amery, G. D., M.A. B.N.C. Lectr.
Agr. Engineering

Agr. Eng. Research Inst.: Denham, H. J., D.Sc. Ball.

Director. [Lectr.

Agr. History [Lectr Lennard, R. V., M.A. Wadh.

Agr. Law Cheshire, G. C., D.C.L., M.A. Exe. Lectr.

Farm Acctcy. and Loc. Govt.
Orwin, C. S., M.A. Ball. (Dir. of
Inst. for Research in Agr.
Economics)
Lectr.

Estate Management [Lectr. Thring, D. T., Hon. M.A. Mert.

## Theology

Lightfoot, Rev. R. H., M.A. New Coll.

Speaker's Lectr. in Biblical Studies.

Streeter, Rev. B. H., M.A. Qu. Reader in Christian Origins. Kirk, Rev. K. E., D.D. Trin.

Reader in Moral Theol. Brook, Rev. V. J. K., M.A. Mert. (Reformation Theol.) Lectr. Wand. Rev. I. W. C., M.A. Or.

Wand, Rev. J. W. C., M.A. Or. (Church Hist.) Lectr. Green, Rev. F. W., M.A. Mert. (Patristic Studies) Lectr.

Divinity

Goudge, Rev. Canon H. L., D.D. Ch. Ch. Reg. Prof. Williams, Rev. Canon N. P., D.D.

Ch. Ch. Lady Margaret Prof.

Eccles. History

Watson, Rev. Canon E. W., D.D. Ch. Ch. Reg. Prof.

Exegesis

Dean Ireland's Prof.

Interpretation of Holy Script.
Simpson, Rev. D. C., D.D. Or.
Oriel Prof.

Nat. and Comparative Religion
Matthews, Very Rev. W. R., D.D.
Lond. Wilde Lectr.

Pastoral Theology
Ottley, Rev. Canon R. L., D.D.

Ch. Ch. Reg. Prof.

Philos. of Christian Religion Grensted, Rev. L. W., D.D. Or. Oriel Prof.

Septuagint [Grinfield Lectr. Billen, Rev. A. V., D.D. Univ.

George Eastman Visiting Prof. 1931-32, Mitchell, Prof. W. C., M.A. Ball.

Bampton Lecturer (alternate years)

1932, Rev. B. H. Streeter, M.A. Queen's.

## Romanes Lecturer

1932, Lord Moynihan, K.C.M.G., C.B., P.R.C.S.

Sidney Ball Lecturer in Econ. 1931, E. Cannan, M.A. Ball.

Sir Basil Zaharoff Lecturer 1931–32, Prof. J. Carcopino, D.ès L. Paris.

Herbert Spencer Lecturer

1932, R. A. Fisher, M.A., Sc.D. Camb., F.R.S., F.R.A.S.

Halley Lecturer

1932, E. A. Milne, M.A. Wadham.

Taylorian Lecturer 1932, G. S. Gordon, M.A.

# University Extension

Lecturers employed under the direction of the Extra-mural Studies Delegacy (about 30).

## THE COLLEGES

ALL Souls College. Founded 1437. Warden-F. W. Pember, D.C.L. Fellows: Jacob, E. F., M.A., D.Phil. Cholmondeley, F. G., M.A. Harris, C. R. S., M.A., D.Phil. Oman, Prof. Sir Charles W. C., M.A., Chelmsford, Viscount, M.A., Hon. Hon. D.C.L., Librarian. D.C.L. Robertson, Sir Charles G., M.A. Brierly, Prof. J. L., B.C.L., M.A. Simon, Rt. Hon. Sir John A., M.A., Radcliffe, C. J., M.A. Hon. D.C.L. Headlam, Rt. Rev. A. C., D.D. Dawson, G. G., M.A. Swinton, Prof. Maj.-Gen. Sir Ernest D., Malcolm, D. O., M.A. K.B.E., C.B., D.S.O., M.A., Dean. Brand, Hon. R. H., M.A. Pares, R., M.A. Craster, H. H. E., M.A., D.Litt. Foster, J. G., M.A. Pollard, A. F., M.A., Sub-Warden. Rowse, A. L., M.A. Wilkinson, H. Spenser, M.A. Makins, R. M., B.A. Archibald, J. G., M.A. Rudler, Prof. G., M.A. Adams, Prof. W. G. S., M.A. Jones, A. H. M., B.A. Somervell, D. B., M.A., Dean. Hudson, G. F., B.A. de Zulueta, Prof. F., D.C.L. Dannreuther, D. S., B.A. Woodward, E. Ll., M.A. Moon, E. P., B.A. Faber, G. C., M.A. Hodson, H. V., B.A. Coupland, Prof. R., M.A. Sparrow, J. H. A., B.A. Rickett, D. H. F., B.A. Curtis, L. G., M.A. Lee, Prof. R. W., D.C.L. Jay, D. P. T., B.A. Macgregor, Prof. D. H., M.A. Bowen, I. I., B.A. Holdsworth, Prof. Sir W. S., D.C.L. Clark, G. N., M.A.

Balliol College. Founded 1263-1268. Master—A. D. Lindsay, C.B.E., M.A., LL.D.

Fellows:

Hartley, Sir Harold, M.A., F.R.S.
Bailey, C., M.A., Tutor (Classics).
Merton, T. R., M.A., D.Sc., F.R.S.,
Prof. of Spectroscopy.
Bell, K. N., M.A., Tutor (Mod. Hist.).
Macgregor, D.C., M.A., Tutor (Classics).
Ridley, Rev. M. R., M.A., Tutor
(Engl. Lit.).
Nicholson, J. W., M.A., F.R.S.

Urquhart, F. F., M.A., Tutor (Mod.

Morris, C. R., M.A. Tutor (Classics), Jowett Lecturer (Philos.), and Tutor for Admissions.

Orwin, C. S., M.A., Estates Bursar.
Rodger, A. B., M.A., Tutor (Economics).
Sumner, B. H., M.A., Tutor (Mod.
Hist.).
Gunn I A MA Prof of Pharma.

Gunn, J. A., M.A., Prof. of Pharmacology.

Mynors, R. A. B., M.A., Tutor (Classics), Librarian.

Thomas, F. W., M.A., Ph.D., Prof. of Sanskrit.

Barry, Rev. F. R., M.A., Chaplain.
Galbraith, V. H., M.A., Reader in Diplomatic and Tutor (Hist.).
Fulton, J. S., M.A., Tutor (Philos.).
Hardie, C. G., M.A., Tutor (Classics).
Duke, A. C. H., D.S.O., C.M.G., M.A., Home Bursar.

Tylor, T. H., M.A., B.C.L., Tutor (Jurispr.).

Gatty, O., B.A., Tutor (Science) and Bedford Lectr.

Allan, D. J., B.A., Tutor (Classics). Allen, W.M., B.Sc. Lond., Tutor (Econ.).

Other Tutors and Lecturers: Stone, C. G., M.A., Tutor (Mod. Hist.). Priestley, J. G., D.M., Ch. Ch., Lectr. (Physiology).

Bryson, J. N., M.A., Tutor (Engl. Lit.). Macfarlane, W. A., B.A., Lectr. (Nat. Sci.).

Hughes, O. L., B.A., Demr. (Nat. Sci.). Linfoot, E. H., D. Phil., Tutor (Maths.).

Fellows: Stocker, W. N., M.A., Lectr. Butler, A. J., M.A., D.Litt. Stallybrass, W. T. S., O.B.E., D.C.L., Vice-Principal, Tutor. Southwell, R. V., M.A., F.R.S., Prof. (Engineering Science). Holroyd, M., M.A., Senior Tutor. Anderson, J. G. C., M.A., Prof. of Anc. Hist. Griffith, I. O., M.A., Tutor, Taylor, T. W. J., M.A., Tutor.

CHRIST CHURCH. Founded 1546. Canons:

Ottley, Rev. R. L., D.D., Regius Prof. of Moral and Pastoral Theology. Watson, Rev. E. W., D.D., Regius Prof. of Eccl. Hist. Cooke, Rev. G. A., D.D., Regius Prof.

of Hebrew.

Shaw, Rt. Rev. E. D., D.D., Archdeacon of Oxford. Goudge, Rev. H. L., D.D., Regius

Prof. of Divinity. Williams, Rev. N. P., D.D., Lady Margaret Prof. of Divinity.

Students (equivalent to Fellows): Payne-Smith, W. H., M.A. Murray, G. G. A., M.A., D.Litt., Regius Prof. of Greek. Dundas, R. H., M.A., Tutor. Hutchinson, G. T., M.A., Treasurer. Chaundy, T. W., M.A., Tutor. Feiling, K. G., M.A., Tutor. Masterman, J. C., M.A., Tutor. Barrington-Ward, J. G., M.A., Tutor; Librarian. Thomson, A., M.A., Prof. of Anatomy.

Brasenose College. Founded 1509. Principal-C. H. Sampson, M.A. Jeffery, R. W., M.A., Tutor, Librarian. Platnauer, M., M.A., B.Litt., Tutor. M'Kie, J. I., M.A., Lectr. Spalding, K. J., M.A., Research Fellow. Waldock, C. H. M., B.C.L., M.A., Lectr. Grant, A. D., M.A., Bursar. Ker, A., B.A., Lectr.

> Other Lecturers: Brett-Smith, H. F. B., M.A. (Engl. Lit.). Amery, G. D., M.A. (Agric.). Bowen, I. I., B.A. (Hist. and Econ.).

Dean-Very Rev. H. J. White, D.D. Russell, A. S., M.A., Tutor, Reader in Chem.

Heaton, T. B., D.M., Tutor, Reader in Anat.

Lindemann, F. A., M.A., F.R.S., Prof. of Exp. Philos. Taylor, F. A., M.A., Tutor. Harrod, H. R. F., M.A., Tutor. Ryle, G., M.A., Tutor. Morison, C. G. T., M.A., Tutor. Myres, J. N. L., B.A. Buzzard, Sir E. F., D.M., Regius Prof.

of Medicine. Percival, Lt.-Col. Sir H. F. P., M.A., Steward.

Grant-Bailey, S. N., M.A. Longden, R. P., M.A. Webster, T. B. L., B.A. Mortimer, Rev. R. C., M.A. Foster, M. B., M.A. Gordon-Walker, P. C., B.A. Collie, C. H., B.Sc., M.A. Einstein, A., D.Sc.

Lecturers: Page, D. L., B.A. Hurst, C., B.A.

Corpus Christi College. Founded 1517. President—P. S. Allen, M.A., D.Litt.

Fellows:

Schiller, F. C. S., M.A., D.Sc. Phelps, W., M.A., Tutor. Clark, A. C., M.A., Prof. of Latin. Pidduck, F. B., M.A., D.Sc., Vice-President and Tutor.

Hardie, W. F. R., M.A., Tutor. Prichard, H. A., M.A., Prof. of Moral Philos.

Thornton-Duesbery, Rev. J. P., M.A., Chaplain, Divinity Librarian.

Geary, F. C., M.A., Tutor, Dean. Henderson, C. G., M.A., Tutor. Veale, D., C.B.E., M.A. Blakeway, A. A., M.A., Tutor.

Other Lecturers:

Hammick, D. L., M.A. (Nat. Sc.). Tylor, T. H., B.C.L., M.A. (*Law*),

EXETER COLLEGE. Founded 1314. Rector—R. R. Marett, M.A., D.Sc., LL.D., F.B.A.

Fellows:

Atkinson, C. T., M.A. Lectr. (Mod. Hist.).

Cheshire, G. C., D.C.L., M.A., Lectr. (Law).

Barber, E. A., M.A., Senior Tutor, Dean, Lectr. (Classics).

Coghill, N. H. K. A., M.A., Tutor, Lectr. (Engl.), Librarian.

Balsdon, J. P.V.D., M.A., Sub-Rector, Tutor.

Wolfenden, J. H., M.A., Tutor, Lectr. (Phys. Sci.).

Bezzant, Rev, J. S., M.A. (Chaplain and Lectr. in Theol.).

Research Fellow:

Eccles, J. C., M.A., D.Phil.

HERTFORD COLLEGE. Founded 1874. Fellows:

Cecil, Rt. Hon. Lord Hugh, M.A., Hon. D.C.L., M.P.

Haselfoot, C. E., M.A. Murphy, N. R., M.A., Sr. Tutor, Lectr. (Philos.).

Denniston, J. D., M.A., Tutor, Lectr. (Classics), Librarian.

Boase, T. S. R., M.A., Tutor, Lectr. (Mod. Hist.).

Professorial Fellows:

Dawkins, R. MacG., M.A., Prof. of Byzantine and Mod. Greek.

Soddy, F., M.A., F.R.S., Prof. of Chem. Entwistle, W. J., M.A., Prof. of Spanish.

Non-Stipendiary Fellow: Balfour, H., M.A.

Other Tutors and Lecturers: Loewe, H. M. J., M.A. (Hebrew). Stampa, L., M.A. Mag. (Mod. Hist.). Hunt, H. J., M.A. (French). Struth, M. le V., M.A. (French). Cox, H. H., M.A. (Philos.).

Profitt, R., B.A. (Maths.).

Catechist:

Quick, Rev. O. C., D.D.

Principal—C. R. M. F. Cruttwell, M.A. Hignett, C., M.A., Lectr. (Anc. Hist.). Fifoot, C. H. S., M.A., Lectr. (Jurispr.). Ferrar, W. I., M.A., Lectr. (Maths.). Meade, J. E., B.A., Lectr. (Econ.). Markham, F. M. H., B.A., Lectr. (Mod. Hist.).

Thornhill, A. E. C., M.A., Chaplain.

Other Lecturer:

Brett-Smith, H. F. B., M.A., Reader in Engl. Lit.

JESUS COLLEGE. Founded 1571. Principal—A. E. W. Hazel, B.C.L., M.A., K.C.

Fellows:

de Winton, Ven. F. H., M.A.

Poulton, Prof. E.B., M.A., D.Sc., F.R.S. Chapman, D. L., M.A., F.R.S., Vice-Principal, Tutor.

Edwards, J. G., M.A., Acting Senior Tutor.

Fraser, Prof. J., M.A.

Hodgkinson, J., M.A., Tutor, Dean. George, H. J., M.A., Tutor, Junior Bursar.

Seymour, P. A., M.A., Senior Bursar.

Lincoln College. Founded 1427. Fellows: Sidgwick, N. V., M.A., F.R.S., Lectr.

(Nat. Sc.).
Marchant, E. C., M.A., Sub-Rector,
Sr. Tutor (Classics).

Cross, Rev. L. B., M.A., Chaplain, Librarian, and Lectr.

Fordyce, C. J., M.A., Tutor. Jones, Rev. Maurice, D.D.

Other Lecturers:

Brett-Smith, H. F. B., M.A., Reader in Engl. Lit.

Hunt, H. J., M.A. (Mod. Langs.). Knox, T. M., M.A. (Philos.). Goodwin, A., B.A. (Mod. Hist.).

Rector-J. A. R. Munro, M.A.

Carlyle, E. I., M.A., Lectr. (Mod. Hist.).

Dreyer, Prof. G., M.A.

Hanbury, H. G., B.C.L., M.A, Lectr. (Jurispr.).

Beazley, Prof. J. D., M.A. Cox, H. H., M.A., Lectr. (Philos.). Allen, Rev. G. F., M.A., Lectr. (Theol.), Jr. Tutor.

Fellows: Benecke, P. V. M., M.A. Miers, Sir Henry A., M.A., D.Sc., F.R.S. Poole, R. L., M.A., D.Litt., F.B.A. Brightman, Rev. F. E., M.A., F.B.A.

Thompson, Rev. J. M., M.A., Tutor (Mod. Hist.). Bowman, H. L., M.A., D.Sc., Prof.

of Mineralogy. Smith, J. A., M.A., Prof. of Philos. Sherrington, Sir Charles S., O.M., G.B.E., M.A., Hon. D.Sc., F.R.S., Prof. of Physiology.

Manley, J. J., M.A., D.Sc.

Salter, Rev. H. E., M.A. Hope, E., M.A., Tutor (Nat. Sc.),

Driver, G. R., M.A., Vice-President and Librarian, Reader in Semitic Philology.

Lee, S. G., M.A., Tutor (Mod. Hist.) Segar, R., M.A., Tutor (Law).

Dixon, A. L., M.A., F.R.S., Prof. of Pure Maths.

MacKeith, M. H., D.M., Tutor (Nat. Sc.), Dean of Med. School.

MERTON COLLEGE Founded 1264. Fellows:

How, W. W., M.A. Miles, Sir John C., M.A., B.C.L. Goodrich, Prof. E. S., M.A., D.Sc. Garrod, Prof. H. W., M.A. Gill, E. W. B., M.A., B.Sc. Mure, G. R. G., M.A., Tutor. Green, Rev. F. W., M.A., Divinity Lecturer, Tutor. Lambert, B., M.A., D.Sc., Tutor. Wyld, Prof. H. C. K., B.Litt., M.A. Jones, I. Deane, M.A., Sr. Tutor.

New College. Founded 1379. M.A., Hon. D.C.L.

Fellows:

Hayes, E. H., M.A Margoliouth, Rev. Prof. D.S., M.A., D.Litt.

Other Lecturers:

Jeffery, R. W., M.A., B.N.C. (Mod. Hist.).

Morison, C. G. T., M.A. Ball. (Agric. Chem.).

Vinaver, E., M.A., B.Litt. (French).

Magdalen College. Founded 1458. President—George S. Gordon, M.A. Snow, G. R. S., B.Sc., M.A.

Weldon, T. D., M.A., Tutor (Philosophy).

Onions, C. T., M.A., Hon. D.Litt., Reader in English Philol.

Lewis, C. S., M.A., Tutor (English). Parker, H. M. D., M.A., Tutor (Anc.

Hist.), Sr. Dean of Arts. Foligno, C. C., M.A., Prof. of Italian. Tansley, A. G., M.A., F.R.S., Prof. of

Bot. McFarlane, K. B., M.A., Tutor (Mod.

Hist.), Jr. Dean of Arts. Christie, J. T., M.A., Tutor (Classics),

Secy: to Tutorial Board. Fox, Rev. A., M.A., Dean of Divinity. Johnson, P., M.A., Lectr. (Physics). Wolfenden, J. F., M.A., Tutor (Philos.). Robinson, R., M.A., D.Sc., F.R.S.,

Prof. of Chem. Forster, A. J., M.A., Estates Bursar. Chapman, R. W., M.A., D.Litt.

Denholm-Young, N., M.A., B.Litt. Opie, R., M.A., Ph.D., Tutor (Econ.). Young, J. Z., B.A., Lectr. (Zool.).

Warden—T. Bowman, M.A. Smith, Prof. D. Nichol, M.A., Sub-Warden.

Thompson, R. C., M.A., D.Litt. de Beer, G. R., M.A., B.Sc. Newboult, H. O., M.A., Tutor. Lawson, F. H., M.A., Tutor. Levens, R. G. C., M.A., Tutor. Harrison, A. R. W., M.A., Tutor. Blunden, E. C., Tutor.

#### Lecturer:

Carter, C. W., B.M. Qu. (Physiology).

Warden-Rt. Hon. H. A. L. Fisher,

Matheson, P. E., M.A. Joseph, H. W. B., M.A., Tutor. Townsend, J. S. E., M.A., F.R.S., Prof. of Physics.

Haldane, J. S., M.A. Henderson, H. L., M.A., Tutor. Walden, A. F., M.A., Tutor. Allen, Prof. Sir Hugh P., D.Mus., M.A. Legg, L. G. Wickham, M.A., Tutor. Myres, J. L., M.A., Prof. of Anc. Hist., Librarian. Ogg, D., M.A., Tutor. Smith, A. H., M.A., Tutor. Joachim, H. H., M.A., Prof. of Logic. Radcliffe, G. R. Y., M.A., Tutor. Casson, S., M.A., Lectr.

Poole, E. G. C., M.A., D. Phil., Tutor. Lightfoot, Rev. R. H., M.A., Tutor, Dean of Divinity.

Creed, R. S., D.M., M.A., Tutor. Cox, C. W. M., B.A., Tutor.

ORIEL COLLEGE. Founded 1326. Hon. LL.D., F.B.A.

Fellows:

Tod, M. N., O.B.E., M.A., F.B.A., Sr. Tutor (Anc. Hist.).

Hammick, D. Ll., M.A., Tutor (Chem.) Simpson, P., M.A., Lectr. (Eng. Lit.). Cohn, E. S., M.A., Lectr. (Mod. Hist.).

Franklin, K. J., D.M., M.A., Tutor (Med.), Librarian.

Simpson, Rev. D. C., D.D., Prof. of Interpretation of Holy Scripture. Wand, Rev. J. W. C., M.A., Dean and

Tutor (Theol.). Hargreaves, E. L., M.A., Tutor (Econ.) Emden, C. S., M.A., Treasurer.

PEMBROKE COLLEGE. Founded 1624. Master—Rev. F. Homes Dudden, D.D. Fellows:

Ramsden, W., D.M.

Drake, H. L., M.A., Vicegerent, Tutor. Collingwood, R. G., M.A., Tutor, Librarian.

Burrowes, Rev. A. B., M.A., Lectr. (Divinity and Classics), Dean. Salt, L. E., M.A., Bursar.

THE QUEEN'S COLLEGE. Founded 1340. Provost-Rev. E. M. Walker, M.A.

Fellows:

Sayce, Rev. A. H., M.A., Hon. D.Litt., Hon. F.B.A.

Yorke, E. C., M.A. Camb., Lectr. (Classics).

McCallum, S. P., M.A., D.Phil., Lectr. (Physics), Junior Bursar, Sub-Warden.

Phelps-Brown, E. H., B.A., Lectr. (Econ.).

Jenkins, H. J. S., B.C.L., M.A., Lectr. (Law).

Crossman, C. S., B.A.

Titchmarsh, E. C., M.A., Prof. of Geometry.

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House, H. W., M.A.

Pares, R., M.A.

Arkell, W. J., M.A., D.Phil., B.Sc.

Provost—W. D. Ross, O.B.E., M.A.,

Powicke, F. M., M.A., LL.D., D.Litt., F.B.A., Reg. Prof. of Mod. Hist.

Grensted, Rev. L. W., D.D., M.A., Prof. of Philos. of Christian Religion.

Maclagan, W. G., M.A., Ph.D. Edin., Lectr. (Philos.).

Other Lecturers:

Burton, R. W. B., B.A. (Classics).

Gough, J. W., M.A. (Mod. Hist.). James, W. O., D.Phil. (Bot.).

Stallybrass, W. T. S., O.B.E., D.C.L.

(Law). Tucker, B. W., M.A. (Zool.). Vinaver, E., B.Litt., M.A. (French).

McCallum, R. B., M.A., Lectr. (Mod. Hist.).

Tolkien, Prof. J. R. R., M.A.

Other Lecturers:

Brett - Smith, H. F. B., M.A. (English).

Berthon, H. E., M.A. (French). George, H. J., M.A. (Nat. Sc.).

Allen, T. W., M.A., F.B.A., Librarian. \*Thompson, C. H., M.A., Sr. Tutor (Maths.).

<sup>\*</sup> Prælector.

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\*Elton, G., M.A., Tutor (Mod. Hist.).

\*House, H. W., M.A., Tutor (Mod. Langs.).

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Lobel, E., M.A.

\*Jones, J. Walter, M.A., Tutor (Jurisprudence).

\*Carter, C. W., M.A., B.M. (Physiology), Dean.

\*Franks, O. S., M.A. (Philosophy).

\*Fraser, L. M., M.A. (*Econ.*). \*Wright, T. E., M.A. (Classics).

\*Ratcliff, Rev. E. C., M.A. (Theol. and Classics), Chaplain,

\*Colman, D. S., B.A. (Anc. Hist. and Classics).

Laming Travelling Fellows:

De Sausmarez, C. H.

Murray, F. R. H.

Malcolm, A. C. E.

Crosthwaite, P. M.

Grey, P. F.

Holliday, L. G. Knight, C. R.

Scott Fox, R. D. J.

Other Lecturers:

Brett-Smith, H. F. B., M.A. (English). Wilkins, W. H., M.A. (Botany).

#### \* Prælector.

St. John's College. Founded 1555. President—F. W. Hall, M.A.

Fellows:

Powell, J. U., M.A., Tutor, Lectr. (Classics).

Douglas, C. G., B.Sc., D.M., F.R.S., Tutor, Lectr. (Nat. Sc.).

Poole, A. L., M.A., Sr. Tutor, Lectr. (Mod. Hist.).

Last, H. M., M.A., Tutor, Lectr. (Classics and Anc. Hist.). Troup, Prof. R. S., M.A., D.Sc.,

F.R.S. Costin, W. C., M.A., Tutor, Lectr.

(Mod. Hist.).

Hart - Synnot, R. V. O., M.A., Bursar.

Mabbott, J. D., B.Litt., M.A., Tutor, Lectr. (Philos.).

Watson, Prof. J. A. S., M.A. (Rural Econ.).

Slade, E., B.A., Tutor and Lectr. in Jurisprudence, Sr. Dean of Arts.

Thompson, H. W., B.A., Lectr. (Chem.), Jr. Dean of Arts.

Greenslade, Rev. S. L., M.A., Lectr. (Theol.), Reader, Sr. Librarian. Bone, G. D., B.A. Lectr. (English),

Jr. Librarian.

Other Lecturers:

Berthon, H. E., M.A. (French). Newboult, H. O., M.A. (Maths.).

TRINITY COLLEGE. Founded 1554-1555. President—Rev.H. E. D. Blakiston, D.D.

Fellows:

Patterson, Rev. M. W., M.A., Tutor, Lectr. (Mod. Hist.), Vice-President. Weaver, J. R. H., M.A., Tutor, Lectr.

(Mod. Hist.), Librarian.

Higham, T. F., M.A., Tutor, Lectr. (Classics).

Landon, P. A., M.A., Lectr. (Jurispr.). Liddell, E. G. T., D.M., M.A., Research Fellow in Physiology.

Hinshelwood, C. N., M.A., Lectr. (Chem.).

Kirk, Rev. K. E., D.D., Lectr. (Theol.). Price, H. H., B.Sc., M.A., Lectr. (Philos.).

Peters, R. A., M.A., Prof. of Bio-Chemistry.

Ewert, A., M.A., Prof. (Romance Langs.).

Hall, R. L., M.A., Lectr. (Econ.). Syme, R., B.A., Lectr. (Anc. Hist.). University College. Founded 1249. Master—Sir Michael E. Sadler, K.C.S.I.. C.B., M.A.

Fellows:

\*Poynton, A. B., M.A. (Greek).

\*Farquharson, A. S. L., M.A., Senior Tutor (Logic).

\*Carritt, E. F., M.A. (Philos.), Librarian.

Sollas, Prof. W. J., M.A., F.R.S., Prof. (Geology).
\*Walker, E. W. A., D.M., D.Sc.,

\*Walker, E. W. A., D.M., D.Sc., Tutor (Nat. Philos.).

\*Stevenson, G. H., M.A. (Anc. Hist.), Secretary.

Leys, K. K. M., M.A., Tutor (Mod. Hist.).

Goodhart, Prof. A. L., D.C.L., LL.D.,

Prof. of Jurispr.

\*Voi: D. J. M.A. (Mod. Hist.)

\*Keir, D. L., M.A. (Mod. Hist.).

\*Bowen, E. J., M.A. (Chem.).

Cole, G. D. H., M.A. Gardner, A. D., D.M., M.A.

Maud, J. P. R., M.A. Campbell, A. H., B.C.L., M.A.

Radcliffe Travelling Fellows: Pugh, J. W., B.M. Irvine, K. N., B.M. Magd.

Other Lecturers and Asst. Lectrs.: Thompson, C. H., M.A. Queen's (Maths.).

Morison, C. G. T., M.A. Ch. Ch. (Rural Ec.).

Douglas, J. A., M.A., D.Sc. (Geology). Lewis, C. S., M.A. Magd. (Engl. Lit.). Chalk, L., M.A., D.Phil. (Forestry). Berthon, H. E., M.A. Wadh. (French). Wilkins, W. H., M.A. Keble (Bot.).

#### \* Prælector.

WADHAM COLLEGE. Founded 1610. Warden—J. F. Stenning, M.A., C.B., C.B.E.

Fellows:

Wade-Gery, H. T., M.C., M.A., Senior Tutor (Classics).

Lindemann, F. A., M.A., F.R.S.,

Prof. of Exp. Philos.

Lamped B. W. M. A. Triton (High)

Lennard, R. V., M.A., Tutor (Hist.). Bowra, C. M., M.A., Tutor (Classics) and Dean.

Keeley, T. C., M.A., Lectr. (Physics). Hart, W. O., B.C.L., Lectr. (Law).

Bretherton, R. F., M.A., Lectr. (Econ. and Mod. Hist.), Librarian.

Milne, E. A., M.B.E., M.A., F.R.S.,

Milne, E. A., M.B.E., M.A., F.R.S., Rouse Ball Prof. of Maths.

Gallie, I., B.A., Lectr. (Philos.). House, Rev. A. H., B.A., Lectr. (Div.), Chaplain.

Other Lecturer:

Berthon, H. E., M.V.O., M.A. (French).

Worcester College. Founded 1714. Provost—Rev. F. J. Lys, M.A. Fellows:

Bryan-Brown, A. N., M.A., Asst.

Roberts, P. E., M.A., Vice-Provost, Tutor, Lectr. (Mod. Hist.).

Wilkinson, C. H., M.A., Lectr. (Engl. Lit.), Librarian.

Pickard-Cambridge, W. A., M.A., Tutor, Lectr. (Classics).

Somerset, H. V. F., M.A., Asst. Tutor, Lectr. (Mod. Hist.).

St. EDMUND HALL. Founded c. 1238. Principal—A. B. Emden, M.A.

Tutors:

Brewis, Rev. J. S., M.A. (Mod. Hist.), Vice-Principal. Brewis, G. R., M.A., Senior Tutor. Glanville, S. R. K., M.A.

Laycock Student of Egyptology:

Tutor, Lectr. (Classics). Braunholtz, Prof. G. E. K., M.A.

Parker, J. L., B.A., Lectr. (Law). Stead, Rev. F. W., Chaplain.

Fletcher, Rev. R. F. W., M.A., Tutor (English).

Hunt, H. J., M.A., D.Phil., Tutor (Mod. Langs.).

Farrer, Rev. A. M., M.A., Chaplain and Tutor (Theol. and Philos.).

Lecturers:

Thompson, C. H., M.A. (Maths.).

KEBLE COLLEGE. Founded 1870. Fellows:

Reade, W. H. V., M.A., Sub-Warden. Milman, Lt.-Col. O. R. E., R.A., D.S.O., M.A., Bursar.

Owen, A. S., M.A.

Jolliffe, J. E. A., M.A.

Rice-Oxley, L., M.A.

Parkes, G. D., B.Sc., D.Phil., M.A.

Brook, M.A. Cath. Address-74 High Street. Tutors and Lecturers:

Thompson, C. H., M.A. Qu. (Maths.). Kendrew, W. G., M.A. Cath. (Classics) Dean.

Brook Rev. V. J. K., M.A. Cath. (Theol.) Garabedian, D., M.A. Cath. (French).

George, H. J., M.A. Jes. (Chem.).

Chattaway, F. D., M.A., F.R.S. (Chem.).

Higham, T. F., M.A. (Classics). Fraser, L. M., M.A. (Econ.).

Warden-Rev. B. J. Kidd, D.D.

Hugh-Jones, E. M., M.A.

Carpenter, Rev. H. J., M.A. Meiggs, R., M.A.

Johnstone, Rev. V. L., M.A.

Lectr.:

Davidge, C. V., B.C.L., M.A. Chaplain:

Blockley, Rev. T. T., M.A.

St. Catherine's Society (Non-Coll. Students). Censor-Rev. V. J. K.

Davies, Rev. R. T., M.A. Cath., Dean of Degrees (Mod. Hist.).

Horwood, F. C., M.A. Cath. (English). Parker, H. M. D., M.A. Magd. (Ancient Hist.).

Whale, Rev. J. S., M.A. Cath. (Mod. Hist.).

CAMPION HALL. Master-Rev. E. G. Vignaux, M.A.

A private hall for members of the Society of Jesus.

St. Benet's Hall. Master-Rev. P. J. McCann, M.A.

A private hall for members of the English Benedictine Abbey of Ampleforth, Yorkshire.

St. Peter's Hall. Master-Rev. C. M. Chavasse, M.A. A private hall for members of the Church of England.

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\*Spens, Janet, M.A. (English).

\*Deneke, Helena C., M.A. (German).

\*Skipworth, Margaret G., M.A. (French).

\*Coate, Mary, M.A. (History).

\*Everett, Dorothy, M.A. (English). Dale, A. Marjorie, M.A. (Classics).

Anson, Christine, M.A., Hall Secretary and Librarian.

Harbottle, Dorothy, Bursar.

Middleton, Grace, B.A., Principal's Secretary.

Lecturers:

Wrinch, Mrs. Dorothy M., M.A., D.Sc. (Maths.).

Ewing, Jean, M.A., B.M. Orr (Physiol.).

Clarke, D. Rhoda, B.A. (French Philol.).

Somerville College, founded as Somerville Hall in 1879. Principal—Helen Darbishire, M.A. Vice-Principal—\*Mildred K. Pope, M.A.

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\*Pope, Mildred K., M.A. (Mod. Langs.).

\*Lorimer, Hilda L., M.A. (Classics).

\*Clarke, Maude V., M.A. (Hist.).

\*Farnell, Vera, M.A. (Mod. Langs.), Dean.

\*Sutherland, L. Stuart, M.A. (Econ. Hist. and Politics).

Hilton, Irene A. F., M.Sc. Liv. (Nat. Sc.).

Lascelles, Mary M., M.A., B.Litt. (Eng. Lang. and Lit.).

Asst. Tutor:

Munro, M. Isobel, B.A. (Anc. Hist.).

Hon. Lecturer:

Bruce, Hon. Alice M., M.A. (Med. French Hist.).

Sarah Smithson Lecturer:

Starkie, Enid M., M.A. (French Lit.).

Research Fellows:

Sharp, D. E., D.Phil. (Lady Carlisle). Hurnard, Naomi D., B.A. (Mary Somerville).

\*Beauchamp, Agneta, O.B.E., Secretary and Treasurer.

\*Stonedale, M. Beatrice, Domestic Bursar.

Napier, Hilda M., M.A., Librarian.

\* Official Fellow.

St. Hugh's College, founded as St. Hugh's Hall in 1886, was incorporated under Royal Charter in 1926. *Principal*—Miss B. E. Gwyer, M.A.

Tutors:

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\*Seaton, Mary E., M.A. (Engl. Lit.).

\*Procter, Evelyn E. S., M.A. (Hist.), Librarian.

\*Glover, Mary R., M.A. (Philos. and

Classics).
Clarke, Mrs. D. E. Martin, M.A.

Camb. (Engl. Lit.).

Leishman, M. A., M.A., B.Sc. (Sci.), Asst. Tutor.

Lecturer:

Wrinch, Mrs. Dorothy M., M.A., D.Sc. (Maths.).

Research Fellows:

Ady, Cecilia M., M.A.

Perham, Margery F., M.A.

Thompson, Beatrice M. Hamilton, M.A., Librarian.

\* Fellow.

St. Hilda's College, founded in 1893 by Miss Dorothea Beale, sometime Principal of Cheltenham Ladies' Coll. *Principal*—Julia de L. Mann, M.A. Tutors:

Cooper, Sybil, M.A., Ph.D. Camb.

Lectr. (Science) and Research
Fellow.

Sandys, Agnes M., M.A., F.R.Hist.S. (Hist.), Vice-Principal.

Keith, Christina, M.A. (Classics).

Rooke, Eleanor W., M.A. (Engl. Lit.).

Chesney, Kathleen, M.A., D.Phil. (French).

Wilson, Evelyn G., M.A. (Econ.).

Lecturers:

Wrinch, Mrs. Dorothy M., M.A., D.Sc. (Maths.).

Toynbee, Margaret R., M.A. (*Hist.*). Whitelock, Dorothy, M.A. (*Engl.Lang.*). Librarian:

Major, Kathleen, B.A., B.Litt.

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Butler, Ruth F., M.A. (Mod. Hist.),
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Leishman, M. A., M.A., B.Sc. (Sci.). Morrison, C. L., B.A. (Eng.).

Asst. Tutors:

Rowe, B. J. H., B.Litt., M.A. (*Mod. Hist.*).

Lecturers: Rhys, O., M.A. (Old French). Wrinch, Mrs. D. M., M.A., D.Sc. (Maths.).

The students reside in their own homes or with relatives or in private families in Oxford, or, occasionally, in lodgings. They may reside in one of the Hostels maintained by Religious Orders: S. Frideswide's, Cherwell Edge (Roman Catholic), and Springfield S. Mary (Anglican).

## GENERAL INFORMATION

Constitution. The Congregation of the University consists mainly of the teaching and administrative elements in the Univ. and Colleges. It is the principal legislative body in the Univ. and, subject to the postponing power of Convocation explained below, can adopt, reject, or amend legislative proposals submitted by the Hebdomadal Council. Convocation, a larger body consisting of all Masters of Arts and Doctors of the Faculties of Divinity, Civil Law, and Medicine, who have their names on the Univ. books, has the power of postponing, but not of rejecting or amending, Statutes or Decrees which have been passed by the vote of less than two-thirds of the members of Congregation present and voting. It also confers honorary degrees and degrees granted by Decree or Diploma. It sanctions petitions to Parliament, and authorises the affixing of the Univ. seal when necessary. The Hebdomadal Council consists of the Chancellor, Vice-Chancellor, immediate ex-Vice-Chancellor (for a certain period after the expiry of his term of office), the Proctors, and 18 members elected by Congregation. It takes the initiative in all legislation of the Univ. and forms the central administrative body. Other important bodies, endowed with considerable powers and responsibilities, are the General Board of the Faculties and the Curators of the University Chest.

The Chancellor, elected for life by Convocation, is a non-resident Officer. The executive power is chiefly in the hands of his Deputy, the Vice-Chancellor, who is annually nominated by him from among the Heads of Colleges, and the Proctors annually elected by the Colleges and Halls in rotation.

The Colleges are corporate bodies distinct from the Univ. They manage their own property, and elect their own officers; and the Proctors have no power within their walls. Their Statutes, however, render them subject to certain Univ. Statutes which deal, among other things, with reservation of a proportion of Fellowships for Univ. teachers and officers, the assignment of Fellowships to University Professorships, the admission of undergraduates, contributions for Univ. purposes, the presentation and audit of accounts, and the special examination of catering accounts. The relation between the Univ. and the Colleges is intimate. The great majority of the members of the Univ. belong to the Colleges, and all who belong to the various Colleges are at the same time members of the Univ. Teaching is given partly by Univ. Profs., Readers, Lecturers, and Demonstrators, partly by the more numerous body of College Tutors and Lectrs.

FACULTIES. Theol., Law, Med., Literæ Humaniores, Mod. Hist., Engl. Lang. and Lit., Med. and Mod. Langs., Oriental Langs., Phys. Sciences (including Maths.), Biol. Sciences. For Music and for Philos., Politics, and Econs., there are Boards of Studies.

Admission to the Univ. ("Matriculation") is without respect of sex, birth, age, nationality, or creed, and follows upon admission to a Society, i.e. a College or Hall or Society. No one can become a member of the Univ. unless he first becomes a member of one of these Societies. An application for admission must therefore be addressed, not to any officer of the Univ., but to the proper officer \* of the Society to which admission is desired; it should be made, if possible, a year or more before residence is contemplated, especially if rooms within the College walls are desired. Except for certain classes of persons the passing of an entrance examn. is a condition of admission to matricn.

The Colleges and Halls and Societies require certain qualifications of character and intellectual attainment in which the passing of *Responsions* or some equivalent examn. is necessarily included.

Students from abroad (v. also Appendix XXI.). The Adviser of Overseas Students (H. S. Williamson, M.A., Indian Institute) will advise applicants from the Dominions and Colonies and foreign countries (other than Rhodes Scholars).

The Secretary to the Delegacy for Oriental Students (H. S. Williamson, M.A., Indian Institute) will advise Indian and other Oriental Students, who should apply for admission through him, but they are recommended to consult the Secv. of the Advisory Committee of their own Province in the first instance.

Permission to attend lectures given by Professors and University Readers, and University Lecturers in English Language and Literature, can be obtained by persons who are not members of the Univ. on payment of a fee of £3 a term at the office of the University Chest, Clarendon Building, Broad Street.

Lectures and classes in Mod. For. Langs. may be attended by external students on payment of fees varying from 15s. to 10s. for one hour a week. Application should be made to the Clerk to the Curators, Taylor Institution.

Incorporation. Members of the Univs. of Cambridge and Dublin can be, under certain conditions, "incorporated" into this Univ., *i.e.* admitted to the status and degree held in their own Univ. Notice of intention to incorporate as an undergrad. must be sent to the Registrar through the Head of a Coll., Hall, or Society. The privileges of incorporation as a graduate are limited to B.A., M.A., Litt.D., B.D., D.D., and D.Sc. of those Univs., LL.B., LL.D., Ph.D. of Cambridge, and Litt.D. of Dublin. Graduates in Law of Cambridge shall when incorporated become B.C.L. or D.C.L., and Litt.D.'s of Dublin shall become D.Litt. of Oxford. Any applicant for incorporation must have kept by residence at his Univ. before taking his degree the same number of terms that he would have been required to keep at Oxford for the corresponding degree. While an undergraduate is allowed to incorporate as a matter of course, a graduate must first satisfy the Hebdomadal Council that there are adequate reasons.

In 1910 a Delegacy for Women Students was constituted, and provision made for recognition by the Univ. of Societies for their reception for academical study, students on the books of such Recognized Societies being accorded a privileged status. Under the provisions of a Statute approved by Convocation on May 11, 1920, which came into force on Oct. 7, 1920, women may be matriculated and admitted to degrees in the Univ. Previous to matricn. a woman must have been admitted as a member of one of the 5 Societies of Women Students. A woman may be admitted to Responsions before matricn. provided her name is sent in to the Asst. Registrar by the Head or a Tutor of a Soc.

\* Balliol—The Tutor for Admissions; Qu.—The Provost; St. Catherine's Society, 74 High St.—The Censor; in other cases—The head of the Society (v. supra).

to which she bona fide desires admission. Women members of the Univ. are admitted to all degrees (except B.D. and D.D.) under the same conditions as those prescribed for men as regards standing, examns., course of study, exercises, and fees, and under analogous conditions as regards residence. A Women Students' Property Committee administers all property vested in the Univ. for the benefit of women members of the Univ. generally, and in particular the Nettleship Library and Bertha Johnson Loan Fund. The Delegacy for Women Students has been abolished.

The number of resident undergraduate members of the Society of Home-Students (who keep statutable residence in houses approved by the Delegates for Lodgings) is limited at present to 220, exclusive of "Advanced students," and of an additional number not exceeding 5 in any term as may for exceptional reasons be given permission to reside. Preference is given to those applicants for admission to the Society whose homes are in Oxford.

The number of undergraduates in residence at the other Societies of Women Students are also limited by Statute to 160 in the cases of Lady Margaret Hall and St. Hugh's Coll., and to 150 in the cases of Somerville Coll. and St. Hilda's Coll.

Admission to Privileged Standing of Students from other Institutions: "Junior" and "Senior" Students. I. Universities other than Indian.—(a) Any student who shall have pursued at his Univ. a prescribed course extending over 2 years may be admitted as a "Junior Student" provided that his course and the standard attained by him in any examns. proper to it shall have been approved. No course will be approved which does not include the study of 2 languages other than English, of which languages one must be either Latin or Greek. (b) Any person who has obtained a degree at his Univ., Degree and Univ. having been approved, may be admitted as a "Senior Student," provided that he shall have pursued at that Univ., or, if approved, at more than one Univ., a course extending over 3 years.

II. Indian Universities.—(a) Any student who shall have pursued at his Univ. a prescribed course extending over 2 years, and obtained the Degree of B.A. or B.Sc., may be admitted as a "Junior Student," provided that Degree and Univ. have been approved. No Degree will be approved which does not include the study of English and in addition of 2 of the following languages, Latin, Greek, French, German, Sanskrit, Arabic, Persian, Pali, Classical Chinese, of which 2 either Latin or Greek or French or German must be one. (b) Any student who shall have pursued at his Univ. or, should the Hebdomadal Council in his case approve, at more than one Univ. a prescribed course extending over 3 years and obtained a Degree with 1st or 2nd Class Honours, may be admitted as a "Senior Student," provided that Degree and Univ. have been approved.

III. A Junior Student: (a) may reckon his 1st term as his 4th; (b) is not required to pass Responsions; (c) is entitled to supplicate for Degree of B.A. after having resided 6 terms and passed the 1st Public Examn. and either (1) obtained a place in the Class List of an Honour School of the 2nd Public Examn. or been allowed "ægrotat"; or (2) satisfied the Examiners in the 2nd Public Examn. in the Final Honour School of Nat. Sc. in Chem., Pt. I., or in the Final School of Agric. or of Forestry; or (3) obtained Honours in the 1st Public Examn., and subsequently passed the 2nd Public Examn.; or (4) if disqualified by standing from obtaining such Honours, shown such merit as would otherwise have entitled him to a place on the Class List.

A Senior Student: (a) may reckon his 1st term as his 4th; (b) is not required to pass Responsions or any part of the 1st Public Examn. or any Preliminary or Previous Examn. of the 2nd Public Examn.; (c) is entitled

to supplicate for the Degree of B.A. after having kept statutable residence for 6 terms, and having either (i.)—as above—(c) (1); or (ii.)—as above—(c) (4); or (iii.) satisfied the Examiners in the Final Honour School of Chemistry, Part I.; or (iv.) passed the Prel. Examn. in Agriculture or Forestry and also the Final Examn. in Agriculture or Forestry.

No Junior or Senior Student will be entitled to supplicate for the Degree of B.A. except as above.

Members of the following Affiliated Colleges may claim the status of Affiliated Junior Student if they have pursued a 2 yrs.' course of study at their Coll. and taken Honours in an examn. thereon: St. David's Coll., Lampeter (3 yrs.' course with Honours may give admission to status of Senr. student); Univ. Colls., Nottingham, Southampton, Exeter; Exeter Diocesan Training Coll. The privileges of an Affiliated Junior Student are similar to but not identically the same as those of a "Junior Student."

TERMS. The Academical year, which begins in Oct. and ends in July, consists of 3 terms, Michaelmas, Hilary, and Trinity, beginning, respectively, on Oct. 1, Jan. 10, and-the Wednesday after Easter Day, and ending Dec. 17, the day before Palm Sunday, and the Saturday after the first Tuesday in July. Residence within the walls of a College or Hall, or in licensed lodgings,\* during a certain number of terms, usually 9, and never less than 6, is a condition of admission to any degree. Full terms begin Oct. 11, 1931, Jan. 17 and April 24, 1932, and end Dec. 5, 1931, March 12 and June 18, 1932.

DEGREES. B.A., M.A., B.Litt., D.Litt.; B.Sc., D.Sc.; D.Phil.; B.D., D.D.; B.C.L., D.C.L.; B.M., B.Ch., M.Ch., D.M.; B.Mus., D.Mus.

The degrees which are open to graduate students of other Univs. who are qualified for matrice, at Oxford are those of B.A., B.Litt., B.Sc., D.Phil., B.C.L., and B.D.

ARTS. Examns. in Arts, more usually called "Schools," are sharply divided into Pass and Honour examns.; in the former there is but one standard, in the latter successful candidates are distributed into 3 or 4 classes. No one is admitted to a place in the Class Lists who has exceeded a certain number of terms reckoned from Matricn. No conditions of residence are attached by the Univ. to either Pass or Honour examns.; it is simply for the attainment of the degree of B.A. that residence is obligatory. Every Coll., Hall, and Society, however, has its own rules with regard to both residence and the entry for examns. A candidate for the degree of B.A. must (1) reside at the Univ. as a matriculated member during 9 terms, unless he is privileged as a member of another Univ. or as a "Service" Student; (2) pass or obtain Honours in the following examns., namely:

(a) Responsions. This is the Entrance Examination to the University. It must be passed, or some examn. accepted as equivalent to it, before matriculation. Names of candidates must be entered through an officer of the Society to which they intend to belong. The examn. includes 3 groups: I. (a) Latin, (b) Greek; II. (a) English, (b) French, (c) German, (d) Italian, (e) Spanish; III. (a) Maths., (b) Nat. Sc. To have passed Responsions it is necessary to have passed either in both subjects of Group I. and in the 2 subjects in Group III., or else in one subject at least in each group, and in 4 subjects in all, including two languages other than English. See also Appendix XX.

(b) The 1st Public Examn. This consists of (1) Examn. in Holy Scripture,

\* In special circumstances leave to reside in a house which has not been icensed may sometimes be obtained.

(2) Honour Classical Moderations, (3) Hon. Math. Modns., (4) Pass Modns., (5) Law Modns., (6) Prelim. N.Sc., (7) Prelim. Agr., and (8) Prelim. Forestry. In order to pass the Examn. a candidate must pass in (1) and in one of the other subjects.

(c) The 2nd Public Examn. This consists of (a) a Pass School and (b) an Honour School. (a) contains a large variety of subjects, and candidates taking it are required to pass in 3 of these, of which one must be a language-subject other than English. There is also a homogeneous course in either Agriculture or Forestry. (b) includes the following, a class in any one of which is sufficient: Literæ Humaniores (Philos. and Ancient Hist.); Maths.; Nat. Science (Phys., Chem., Physiol., Zool., Bot., Geol., Astron., or Engin.); Jurispr.; Mod. Hist.; Theol.; Oriental Studies (Sanskrit, Arabic, Hebrew, Persian, or Egyptian); Engl. Lang. and Lit.; Mod. Langs. (French, Ger., Ital., Span., Russ., or Mediæval and Mod. Greek); Philos., Politics, and Economics.

Under certain conditions members of other Univs. and officers not under 2r years of age who have held for not less than 3 years a Commission in H.M. Regular Forces, and been seconded or specially relieved from active duty by the Admiralty, War Office, Air Ministry, or India Office for the purpose of attending an academic course of not less than 2 yrs., may be admitted to the status of "Service Student," and obtain exemption from Responsions and, under further conditions, from the 1st Public examn., as well as a remission of 3 terms of the necessary residence (v. supra, p. 227). Analogous concessions are made in favour of Probationers for Forest Services in the British Empire who have obtained an approved degree at an approved Univ. and been admitted to the status of "Imperial Forest Service Student." Natives of Asia, Egypt, or the Sudan, born of non-European parents, can apply for permission to offer a substitute for Latin or Greek in Responsions and the 1st Public examn.

ADVANCED STUDY AND RESEARCH. The DEGREES B.LITT. AND B.Sc., instituted in 1895 in order to encourage special study and research, are granted upon the satisfactory completion of an approved course of special study or research pursued under supervision and for the most part at Oxford. Application to enter upon such a course may be made by any person who produces sufficient evidence of his ability and (1) is a member of the Univ. who has passed the examns, for the degree of B.A., or (2) has taken an approved degree at an approved Univ., or (for the B.Litt), not being a member of the Univ. of Oxford, (3) has obtained an Oxford diploma with distinction, or is held by the Board of the Faculty to be fully qualified to engage in research. Applications must in all cases be made to the Secy, of Faculties through an officer of the Society to which the candidate belongs or desires to belong. Residence as a member of the Univ. for 6 terms is a necessary condition for either degree. A candidate for the B.Litt. must first undergo a course of training in research methods and then do a special piece of research work and write a thesis, and may be required to pass a written examn. For the B.Sc., which is confined to the faculties of science and medicine, no probationary period is prescribed.

Of a similar nature but of a much higher standard is the degree of Doctor of Philosophy instituted in 1918 (v. p. 18).

To a student who, having carried out his research for a period of not less than 3 terms, has completed a course of study or research for the B.Litt. or B.Sc. and embodied the results in a dissertation, or has pursued during such residence a course of study or research under the direction of the COMMITTEE FOR ADVANCED STUDIES, a *Certificate* may be granted by the Board of the Faculty or Board of Studies concerned or by the Committee for Advanced Studies, as the case may be.

The higher degrees, D.Litt. and D.Sc., instituted in 1900, are awarded for published work of sufficient merit.

Theology. The B.D. degree is open to candidates of over 26 yrs. of age who have passed a Qualifying examn. in Christian Theology, pursued a course of study therein extending over 6 terms, resided for 6 terms, and submitted a thesis of sufficient merit in some branch of the subject. No candidate may present a thesis until he has passed the Qualifying examn., which is open to Oxford M.A.'s, to persons who have, not less than 5 terms previously, passed all examns. for the Oxford B.A., and, under certain conditions, graduates of other univs. First-class hons, in School of Theol. exempts from this examn.

The degree of D.D. is open to those who have been admitted to the degree of B.D. subject to certain conditions of standing, provided they have submitted a thesis, or published work, of sufficient merit in some branch of Christian Theology.

Law. The examn. for the B.C.L. degree is open either (1) to B.A.'s of the Univ. or (2) under certain conditions (including residence for 6 terms) to graduates in Arts, Philos., Science, or Law of other Univs. The subjects are Jurispr., Roman, Engl., Roman-Dutch, and Internat. Law.

MEDICINE. The B.M. degree is open only to B.A.'s of the Univ. who have passed certain examns. in Med. and Nat. Science. The total period of study for the degree (including the scientific subjects studied in the Arts course) is generally about 7 or 8 years, of which two or three are usually spent in London in preparation for the more strictly professional subjects of the 2nd B.M. examn. The M.Ch. degree is open to candidates who have passed all the examns. for the B.M. and B.Ch., and either are members of the Surgical staff of a recognized hospital or have acted in such a hospital as Dresser or House Surgeon for 6 mos.' A candidate for the D.M. must be a B.M., and have entered on the 30th term from matricn. and had his name on the books of some Coll. or Hall or on the Register of Non-Coll. Students for 20 terms.

Affiliated Colonial or Indian Senior Students may be exempted from the preliminary examn. in Physics, Chemistry, Zoology, and Botany, in consideration of equivalent examns. passed at their previous Universities.

Music. The degree of B.Mus. is open to candidates who either (a) have been admitted to the degree of B.A. or (b) have (r) passed Responsions or an equivalent Examn., (2) pursued at the Univ. a course of musical study extending over at least 2 years. All candidates must also pass 2 examns. in Music (and compose a Musical Exercise) under conditions laid down by Statute. Residence for 6 terms is required, and the examn. may be completed in 6 terms as in the case of the Degrees of B.Litt. and B.Sc. A B.Mus. may qualify for the degree of D.Mus. by submitting a musical composition for approval and passing a further examn. in Music, but cannot submit a composition until the 9th term after his admission to the Baccalaureate.

DIPLOMAS. Most of these are open to persons who are not members of the Univ. Minimum courses and addresses of Secretaries from whom particulars can be obtained:

Geography, 1 yr., The Director, School of Geog., Mansfield Rd.

Education, 1 yr. (or Vacation course, v. infra), Director of Training, 15 Norham Gardens.

Economics and Political Science, Asst. Registrar.

Anthropology, 1 yr., The Secy., Committee for A., University Museum.

Forestry, r year, The Professor of F., School of F. Open to graduates of Oxford or other Univs.

Rural Economy, 1 yr., The Professor of R.E., School of R.E.

Classical Archæology, r yr., Secy. to Committee on C.A., Ashmolean Museum.

Theology, 1 yr., Secy. of Faculties.

Comparative Philology, 1 yr., The Prof. of C.P., Worcester Coll.

Mediæval and Modern Art, Secy., Committee for the Fine Arts, Ashmolean Museum.

Open to Registered Medical Practitioners and to approved Bachelors and Doctors of Med. of Univs. outside the U.K.: Ophthalmology, Dean of the Medical School, University Museum.

Certificates: Surveying or General and Regional Geog., 2 terms, Director, School of Geog.; Physical or Cultural Anthropology, 3 months, The Secy., Committee for A., University Museum; French or German; Training for Social Work, The Secy., Social Training Committee, Barnett House.

The following have been approved as Societies for higher study at Oxford, the members of which may have their names entered in the Univ. Register of Diploma students although they are not members of the Univ.: Ruskin College, Catholic Workers' College.

Commissions in H.M. Forces, v. Appendix I. Candidates must have resided for 3 yrs. at the Univ., be over 21 and under 24, be unmarried, and be in possession of a degree. (a) An Honours degree second class entitles the holder to have his name submitted to the War Office for a scholarship, on gaining a commission, of  $f_{50}$  for 5 yrs. (b) An antedate of seniority is given of 18 months on joining. Office of the Secy. to the Delegacy for Military Instruction—Manor Road.

AVIATION. Membership of the University Air Squadron is granted by selection to members of the University after interview by a Selection Committee. All candidates must obtain parental and College permission to join, and must be up to the full medical standard of the Royal Air Force. There are no fees for entrance, medical examination, or flying instruction, but a small annual subscription is imposed for Club purposes. Every member undertakes to obtain the Squadron Certificate of Proficiency by the end of his second year in the Squadron. This involves passing an examn. in four ground subjects, and it qualifies the holder to fly solo in term time. The Squadron is limited to 75 members, and in consequence there is great competition for membership. Students from overseas are advised to bring parental consent to join the Squadron with them before they sail for England.

Indian Civil Service. Studies of selected candidates are superintended by a Delegacy.

The Department for the Training of Teachers (address—15 Norham Gardens), established in 1919, is under the general direction of a Delegacy. For staff, see under Education. For the Univ. Dipl. in Educn. there is a 1 yr. post-grad. course, theoretical and practical. Undergraduates are admissible on certain conditions. One or, under certain conditions, two terms may be spent in practical work at a secondary school or, by special permission, abroad at an approved European Univ. Students are also accepted for a 4 yrs.' course (v. Appendix XIX.).

A vacation course of 4 weeks (fee f7: 10s.) is held from time to time in Aug. It will be held in 1932, and is open without restriction to men and women. Students of this course who are graduates and who are teachers with 7 yrs.' experience may obtain the Univ. Diploma without further residence.

SCHOLARSHIPS AND FELLOWSHIPS. College Entrance scholarships are very numerous and valuable. The Univ. scholarships and fellowships are usually

open only to members of specified standing. Of those open to graduates, 16, of the aggregate value of £1130 p.a., are for Engl., Greek, and Latin; 1 (£100) is for Ment. and Mor. Philos.; 2 (£80) for Maths.; 8 (£1340) for Med. and Nat. Science; 4 (£440) for Law; 3 (£300) for Theol.; 13 (£760) for Oriental Studies. The Univ. offers a number of Research Scholarships and Studentships, e.g. a Biological scholarship (annually, £200 for 1 yr.) tenable at the Zoological Institute, Naples; the George Webb Medley Scholarships (2 annually, £80 to £300 p.a. for 2 yrs., renewable for not more than 3 yrs.), for Economics and Polit. Sci.; the Scott Scholarships (2 annually, c. £95 for 2 yrs.), "for the furtherance of physical science"; the Beit Senior Research Scholarship (on terms decided by the Bd. of Management of the Beit Fund, up to £250 in any yr.), for Colonial History; the Henry Francis Pelham Studentship (annually, £100 or less for 1 yr.), tenable at the British School of Archæology at Rome; a Research Studentship (occasionally for 1 yr.), for Greek Lit.; the Bryce Research Studentship (annually, £240 for 1 yr.), for History.

There are also *Travelling Scholarships and Studentships*, e.g. the Derby Scholarship, for classical scholarship (incl. palæography and philos.), offered annually (£200-£300 for 2 yrs., of which at least 8 mos. must be spent abroad); the Heath Harrison Travelling Scholarships (13 annually, £75 usually for 1 yr.), for study of a modern lang. abroad; the Zaharoff Travelling Scholarships (1 or more annually, £150 for 1 yr.), for promotion of French studies; the de Osma Studentship (annually, the net income from £2110 odd Funding 4 per cent. Stock), for not less than 6 weeks' study at the Instituto de Valencia de Don Juan, Madrid; the George Herbert Hunt Travelling Scholarship (every other

yr., c. £100), for Medicine.

The Colls. have power to elect persons distinguished in Science or Literature to Senior Research Fellowships on condition of prosecuting some definite work; they have also power to elect from time to time Junior Research Fellows for limited periods, usually after examn.

The General Board of Faculties has power to award studentships for advanced study and research; and there are certain funds, such as the Craven and Ireland, from which grants for the furtherance of particular studies may be made.

For post-graduate Scholarships and Fellowships open to non-members of the University, see App. XXIII.

The Rhodes Scholarships were founded in 1902 under the will of the late Cecil John Rhodes. The value of each is £400 a year, tenable at Oxford for 3 years, subject to approval from year to year by his College of the Scholar's progress and conduct. The conditions of the competition in each country or community are fixed from time to time by the Trustees.

In his will. Mr. Rhodes expressed the wish that "in the election of a student to a Scholarship, regard shall be had to (1) his literary and scholastic attainments; (2) his fondness for and success in manly outdoor sports, such as cricket, football, and the like; (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship; and (4) his exhibition during school-days of moral force of character, and of instincts to lead and to take an interest in his schoolmates."

The Dominions and Colonies. An annual Scholarship is assigned to each Province\* of the Dominion of Canada; to each State of the Australian Commonwealth; to the Dominion of New Zealand (2); in South Africa to the Province of Natal, the Transvaal, the Orange Free State, the Cape Province, the S.A.

<sup>\*</sup> Two each to Quebec and Ontario.

College School in Cape Town, the Diocesan College School of Rondebosch, the Boys' High School, Stellenbosch, and the St. Andrew's College School at Grahamstown, in alternate years to the towns of Kimberley and Port Elizabeth, and not more than three annually to Rhodesia. The Colonies of Jamaica, Newfoundland, and Bermuda have each an annual Scholarship. A single Scholarship was for the first time allotted to the Island of Malta in 1921, and is awarded once in 3 years.

In founding these Scholarships, Mr. Rhodes stated that he did so because he believed that the education of young Colonists at one of our residential universities will "broaden their view," "instruct them in life and manners," and "instil into their minds the advantage to the Colonies as well as to the

United Kingdom of the retention of the unity of the Empire."

United States of America. 4 Scholarships are assigned annually to each of 8 regions, of 6 States each, which are awarded among candidates sent forward from each State in the region. The reason given by Mr. Rhodes for founding the American Scholarships is his "desire to encourage and foster an appreciation of the advantages which I implicitly believe will result from the union of the English-speaking people throughout the world, and to encourage in the students from the U.S. . . . an attachment to the country from which they have sprung, but without I hope withdrawing them or their sympathies from the land of their adoption and birth." The American Oxonian, the official magazine of the Alumni Assocn. of American Rhodes Scholars, is published quarterly by Henry Allen Moe, 551 Fifth Avenue, New York.

Germany. The German Rhodes Scholarships, which were discontinued during the war, have recently been re-established. The two-year scholarships of £300 a year each were restored to Germany in 1930.

Number actually in residence, 1930-31 (whole or part), 186 (102 from the Brit. Empire, 82 from the U.S.A., 2 from Germany)—Studying Law, 49; Nat. Sc. and Med., 41; History, 19; Econs. (Dipl., etc.), 4; Lit. Hum., 7; Engl., 24; Maths., 6; Phil. Pol. and Econs., 26; Mod. Langs., 6; other subjects, 4.

Professions followed by Rhodes Scholars since leaving Oxford. Education, 517; Law, 339; Business Industry and Mining, 154; Govt. Service, 69; Medicine, 95; Ministry and Social Work, 44; Farming, 20; Journalism and Publ., 38; Engineering, 28; Army, Navy, or Air Service, 6; Continuing

Academic Studies, 14; Miscellaneous, 50.

General. Provision is now made under the Trust for the continuous residence at Oxford of between 190 and 200 scholars. Candidates must be between 190 and 25 years of age and unmarried. They must be citizens of the country from which they come—usually with 5 years' domicile; and must have at least 2 years' standing at a regular degree-granting College or Univ., except in a few small communities which have no such institution. Detailed information for each country may be obtained from the offices of the Trust, Seymour House, Waterloo Place, London, S.W.r.

The most useful book dealing with the subject is Oxford of To-day, a manual for prospective Rhodes Scholars, Oxford Univ. Press, 1922; 2nd edition, 1927.

Secretary to the Rhodes Trustees—The Marquess of Lothian, C.H., Seymour House, Waterloo Place, London, S.W.r. Local Secretaries: Oxford—Sec. to the Rhodes Trustees and Warden of Rhodes House, C. K. Allen, M.A., Rhodes House, Oxford; U.S.A.—President Frank Aydelotte, Swarthmore College, Swarthmore, Pa.; Canada—J. M. Macdonnell, 20 King St. East, Toronto; Australia—J. C. V. Behan, Warden's Lodge, Trinity College, Carlton, N.3, Victoria; S. Africa—P. T. Lewis, Temple Chambers, Wale St., Cape Town.

The Rhodes Travelling Fellowships, founded in 1926, are to enable resident

Fellows, Tutors, or Lecturers of either sex at Oxford to travel, study, or undertake research in the British Commonwealth and the United States, and especially in those territories from which Rhodes Scholars are derived. A candidate must have spent at least 5 years as a resident Fellow in Oxford, and will be expected to return to Oxford when his Fellowship expires and resume his teaching there. The value of the Fellowship is £100 a month for from 6 to 12 months.

THE APPOINTMENTS COMMITTEE deals with appointments of all kinds. It has through its Consultative Committee reps. in every Coll. Sec.: C. E. D. Peters. Ednl. Sec., E. A. Greswell, 36 Beaumont St. Telegrams—Appointments, Oxford.

Women's Appointments Office. Sec.: Miss Gwyer, St. Hugh's Coll.

The Bodleian Library, founded by Sir Thomas Bodley in 1602, which is also the general library of the Univ., contains over 1,400,000 vols. (representing more than 2,800,000 separate literary pieces) and 40,000 MSS. Persons, other than graduates of the Univ., are admitted on presenting a recommendation from some one in a responsible position in Oxford or elsewhere, knowing the applicant personally. The Manual for Readers (obtainable from the Librarian) contains full information about the contents and catalogues of the Library. The chief books relating to it are: Macray, W. D., Annals (Clar. Press, 1890, 25s.); Clark, A., Guide for Visitors (Clar. Press, 1906, 1s. 6d.); Gibson, S., Some Oxford Libraries (Clar. Press, 1914, 2s. 6d.); Madan, F., The Bodleian Library (London, Duckworth, 1919, 2s. 6d.); The Bodleian Quarterly Record from 1914 (1s. quarterly, obtainable from the Libn.).

There are the following departmental libraries of the Bodleian: The Law Library (law of English-speaking countries), and the

Maitland Library (social and legal history), at the Examination Schools.

The Radcliffe Science Library at the Univ. Museum, 84,000 vols., consisting largely of books and periodicals on Maths., Nat. Sci., and Med., and of the Tylor Anthropological collection.

The Indian Institute Library, devoted to Oriental studies. There is also in the Indian Institute a museum illustrating Indian antiquities and Indian life. Rhodes House Library (history, etc., of the British Empire and the U.S.A.).

THE TAYLORIAN LIBRARY (Modern Languages and Literature), 100,000 vols., comprises the chief philological, literary, and historical works of the principal European languages and nearly all respective Reviews, Literary periodicals, etc., of Continental Societies of importance.

COLLEGE LIBRARIES. Modern History and Law, at All Souls (The Codrington Library); Political Economy and Science, also at All Souls (The Brand Library). Other important collections include Russian and Slavonic books, at Queen's; History and Literature MSS. of 17th cent., at Worcester; Music and Early Scandinavian collections, at Christ Church. The MSS. in the College Libraries are described in Coxe's Catalogue, published at the Clarendon Press, 1852.

There are also: the Nettleship Library, I Jowett Walk (Librarian—Dorothy M. Bigg); the English Library (Examination Schools) (Librarian—P. Simpson, M.A. Oriel); a Geographical Library (c. 14,000 vols. excluding periodicals) and Maps (c. 17,000) at the School of Geography, Mansfield Rd. (Librarian—J. N. L. Baker, B.Litt., M.A. Jesus); and a Library of Economics and Politics at Barnett House.

Museums. The University Museum includes collections and laboratories

with the following depts.: Med. and Public Health, Human Anat., Pathol., Pharmacol., Chem. (Dyson Perrins Lab. and Old Chem. Dept.), Geol. and Palæontol., Mineral., Engin. Science, Physics, Physiol., Biochem., Zool. and Comparative Anat., Zool. (Lepidoptera collection illustrating mimicry, etc.), Experimental Philos.

The Ashmolean Museum (Keeper—E. T. Leeds, M.A. Magd.), the earliest English museum, formed 1600–1650, contains, in addition to a Library of Art and Archæology, the Parian and other marbles, Egyptian and Oriental, Classical, Prehistoric, Anglo-Saxon, and local antiquities, 60,000 coins and medals (published catalogue of Mohammedan coins), and a special collection of Drawings and Engravings by Ruskin.

The Lewis Evans Collection of Scientific Instruments in the Ashmolean building illustrates the history of scientific studies, especially in Oxford, by contemporary instruments, engravings, and books.

The Pitt-Rivers Museum (Curator—H. Balfour, M.A. Exe.) has an anthropological collection illustrating the evolutionary history of material arts.

LABORATORIES: Electrical; Clarendon (chiefly for study and research in Heat, Optics, and Acoustics); Chemistry, Organic and Inorganic (several Colleges have labs. of their own, e.g. Ch. Ch.—Analyt. Chem.; Ball. and Trin.—Phys. Chem.; Jes.—Inorganic; Queen's): Physiology; Biochemistry; Zoology; Entomology, with extensive Collections and Library; Botany (Garden with Collections and Library); Geology (special equipment for study of fossils by serial sections); Mineralogy (special facilities for research in Crystallography); Engineering; Forestry (expl. plantations and forest garden); Human Anatomy; Pathology and Bacteriology; two Observatories.

THE IMPERIAL FORESTRY INSTITUTE is controlled by a Board of Governors representing the Univ. and the Government departments (Colonial Office, Forestry Commission, etc.) concerned. It provides post-graduate and specialized training, as well as revision courses for forest officers already serving, and forms a centre for research in regard to forest production. Practical instruction is provided in various forest centres on the Continent. Address: Sec., Imperial Forestry Inst., Oxford.

The School of Rural Economy is the Department of the University responsible for teaching in Agriculture. There is an Institute for Research in Agricultural Economics and an Institute for Research in Agricultural Engineering. There is also an agricultural Advisory Institute responsible for advice and research on local problems in Oxfordshire and Northamptonshire. There is a farm in connexion with the School and the Institutes for demonstration and experimental purposes. The School and the Institutes are mainly financed by grants made by the Ministry of Agric. to the Univ. for this purpose. (See App. XXIV. A. I. (e), (g).)

The Oxford and Cambridge Schools Examn. Board, established 1873, examines or inspects and reports on the work of schools which provide education of the highest grade. It also holds yearly examns and awards certificates—Higher School, and Lower. The two former exempt the holder, under certain conditions, from Responsions and the Previous Examination, the Matricn. examns of London, the Northern and other English Univs., and the Preliminary examns of various professional bodies, etc. The Regulations of the Board are published by the Ox. and Camb. Univ. Presses (post free rs. 3d.). Secretaries: at Oxford—C. H. Wilkinson, M.A., 40 Broad St.; at Cambridge—T. G. Bedford, M.A., 61A St. Andrew's St.

Local Examinations are held in July and Dec. at Oxford and elsewhere. Candidates successful in the School Certif. or in the Higher School Certif. examn., are on certain conditions exempted from Responsions, the Cambridge Previous and various matrical examns. The regns. may be obtained from the Secy of Local Examns., Merton St. All the examns are open to persons of both sexes.

EXTRA-MURAL STUDIES. There is a Department for the non-vocational education of adult persons beyond the limits of the Univ. The Delegacy for Extra-mural studies may recommend the admission of adult students to the Univ. without the necessity of passing Responsions. The Delegacy controlling the Dept. has three Committees, one for Univ. Extension Lectures, one for Univ. Tutorial Classes, and one for promoting adult education in Oxon, Berks, and Bucks.

Univ. Extension Lectures. The system begun in Camb. was adopted by Ox. in 1878. Up to the end of the session 1930-31 the number of persons attending courses was over 698,000, and the number ot students examined 30,851; 25 summer meetings had been held. Reading University partly owes its origin to extension work. The following certifs. are issued under the sanction of the Delegacy: Terminal, on courses of 10 or 12 lectures; Sessional, on 24; Sessional in Honours, implying distinction and a special essay. Further information can be obtained from the Secy. to the Delegates for Extra-mural Studies, Rewley House, Wellington Square, Oxford (Rev. F. E. Hutchinson, M.A.).

Tutorial Classes are held in working-class districts under the supervision of the Tutorial Classes Committee. Students pledge themselves to a 3 yrs.' course. The classes meet once a week for 2 hrs. from Sept. to April, and each student writes an essay about once a fortnight. The Organizing Secy. is E. S. Cartwright, M.A., Rewley House, Wellington Square, Oxford.

Oxon, Berks, and Bucks Committee, formed in 1924 for promoting adult edn. in the villages and small towns of those three counties. In the session 1930-31 there were 61 courses held in 51 centres.

The Oxford Summer Meeting is held biennially; and will take place in August 1933.

Publications. Calendar (Nov.), 12s. 6d. net (includes Honours of each year from 1921. Earlier Honours given in Historical Register, 1900, 10s. 6d. net, and its Supplement, 1900-1920, 12s. 6d. net, giving, in addition to class lists and Hon. lists, information regarding constitution, university scholarships, offices and their incumbents, etc.). Responsions Pamphlet (June), 6d. (Regns. for 1931-33 with dates of examns, and general information); General Information (admission, residence, entrance scholarships, examns. for B.A., etc.), 7d. post free; Fellowships, Studentships, Scholarships, Exhibitions, and Prizes open to Undergraduate and Graduate Members of the University, is. net; Statutes and Decrees (Oct.), 5s. net; Examn. Statutes (July), 3s. 6d. net; Pamphlet on Advanced Study and Research (Research Degrees, subjects of study, Libraries and Collections, Scientific Departments and Staffs), is. net; Pocket Diarv for academic year (Oct.), 2s. 6d. net and 3s. 6d. net; Resident Members, with their addresses, 2s. 6d. net (term); Decennial Report, 1914-23, on work of Oxford and Cambridge Schools Examn. Board, 6d.; Enactments in Parliament concerning Ox. and Camb., Winchester, Eton, and Westmr., 2 gs. Oxford Univ. Roll of Service, 1920, with names (14,561) and records of members of the Univ. who served in the Mily. and Naval Forces during the War, 15s. net. Oxford of To-day, a Manual for Prospective Rhodes Scholars, ed. L. A. Crosby, F. Aydelotte, and A. C. Valentine, 1923.

10s. net. All the above are obtainable from the Oxford Univ. Press and its branches, as is likewise the official University Gazette (annual subscription. 10s. 6d. post free). The University Handbook new edition, spring 1932. Unofficial periodicals: Oxford Magazine (during term), 6d.; Isis (during term), 6d.; Cherwell (during term), 6d.; Fritillary (during term), 6d. Among other sources of information regarding the University the following may be cited: Wood (A.), Hist. of the Univ. of Oxford, 3 vols., 1792-96; Wood (A.), Athenæ Oxon. (with Fasti), ed. by P. Bliss, 4 vols., 1813-20; Maxwell-Lyte (H. C.), Hist. of the Univ. of Oxford to 1530, 1886; Foster (J.), Alumni Oxon., 1500-1886, 8 vols., 1887-92; The Colleges of Oxford, ed. by A. Clark, 1891; College Histories, published by F. E. Robinson & Co.; Wells (J.), Oxford Degree Ceremony, 1906 (2s. 6d. net); Headlam (C.), The Story of Oxford, 1907 (7s. 6d. net); Mallet (Sir C.), Hist. of the Univ. of Oxford, 2 vols., 1924 (£2:2s. net); Barnard (F. P.) and Shepard (T.), Arms and Blazons of the Colleges of Oxford (3s. 6d. net); Fletcher (C. R. L.), Handy Guide to Oxford (1s. net); The Government of Oxford, 1931 (3s. 6d.).

EXPENSES. "It is not possible to make any general estimate of the cost of a University course, which varies at different colleges, and depends upon the student's own means and tastes. It must suffice here to enumerate certain items common to all undergraduates, and to recommend persons anxious for further details to consult the authorities of the Society which they wish to join. . . . The total cost of living in college might perhaps be estimated at from £70 to £80 a term for a man who exercises reasonable care in his expenditure. At Keble College there is a fixed annual charge (at present (150), covering tuition, the rent of furnished rooms, board, and service. The necessary expenses of a student of St. Catherine's Society have been estimated at from foo-froo per annum, inclusive of board, lodging, fees, and subscription. At the residential Societies for Women Students an inclusive terminal fee is charged. This is about £50 a term, but varies slightly at the different Societies." -Extract from General Information pamphlet mentioned in preceding paragraph. The items specified are:—(1) Annual: Univ. dues, £4: ros.; College tuition fee, £24 to £31: 10s.; room rent, £15 to £18; hire of furniture, £6; College clubs, £6; rates and taxes on the rooms occupied, College dues and establishment charges and servants' wages, kitchen and buttery bills, fuel, laundry, lighting, etc. (amounts not separately estimated). (2) Initial: matricn., £4; College admission fee (usually £5); College caution-money, £10 to £30 (returned when name is removed from the books, and often in part on taking a degree). (3) Occasional: examn. fees, about £9 for B.A. (exclusive of Responsions, £3); degree fees (B.A., B.Litt., or B.Sc., £7:10s.).

What has been stated above regarding the difficulty of estimating expenses at Oxford applies equally to Cambridge. The Student's Handbook to Cambridge, 1924-25 (Cambridge University Press, 7s. 6d.), deals with the subject of expenses very fully, and concludes with the following remarks: "The total annual expenditure of a student, exclusive of initial, occasional, and additional expenses, may be fairly estimated at about £235, although on the one hand it is possible by great care to live upon less, and on the other hand a larger expenditure will often enable the student to obtain greater advantages from a University career. . . . It is of the utmost importance that the foregoing estimates should not be taken for more than they are worth. . . . The only safe guide to a student's expenditure is information supplied by the college itself at which he decides to enter." The detailed statements on which the above estimate of annual expenditure is based include "guesses" as to personal expenses which the Oxford estimate leaves out of account. The items are :—Univ. fees (capitation tax), £5:5s.; College fees, £54 (tuition,

£24 to £30; establishment charge, £18 to £21; College dues, £4 to £10); board and lodging, £110 (rooms and service, £21 to £50; food expenses, £38 to £87; fuel, £5 to £7; laundry, £4: ros. to £9); personal expenses, £67 (books, travelling, tradesmen—including tailor, etc., clubs, and societies). The excluded initial expenses are caution-money, College admission fee (£2 to £5), matricn. £5, furniture, linen, china, etc., and (£2 to £4: ros.) cap, gown, and surplice. The "occasional" fees are for examns. £8 (medical, £16: 8s.), and degree fees, £5. The "additional" expenses (which may be heavy, especially if much private tuition has to be allowed for) are additional lecture and laboratory fees, long vacation expenses, and private tuition.

## RECENT CHANGES IN STATUTES

Under the Universities of Oxford and Cambridge Act 1923, which set up a Statutory Commission for Oxford, new Statutes were made for the University and for the Colleges. These Statutes were laid before Parliament and received the approval of the King in Council. A summary of the most noteworthy changes embodied in them, prepared by Sir Henry Sharp, K.C.I.E., the Secretary to the Commission, will be found in the Yearbook for 1929, pp. 221 and 222.

# THE YEAR 1930-31

Benefactions. The University gratefully accepted an offer by the Regius Prof. of Greek to extend the benefaction under which a Research Studentship in Greek Lit. was established in 1923 by contributing to the Univ. a sum of £250 p.a. until further notice. An anonymous donor made a gift to the Univ. of £5000. Of this sum, £3000 will be allocated to the lighting expenses of the Bodleian Library and matters incidental thereto, the balance invested, and the income used for the purchase of scientific books and periodicals. £200 by Mrs. Clara Brooks for the Dept. of Forestry in memory of her son, Clement C. Brooks, the interest from the investment to be applied to the purchase of books on entomol. or allied subjects, and of insects and other collections for the benefit of the Dept. A bequest of £855: r: 4 by the late Prof. T. H. Green for founding a prize to be awarded once every 3 yrs. for a dissertation on some subject relating to Moral Philos., to be known as the Green Moral Philosophy Prize. A further gift of £1000 was received from the Trustees of the late Canon John Gamble and added to "The John Gamble Fund.

LEGISLATION AND GENERAL. The name of the Body of Non-Collegiate Students was changed by Statute to St. Catherine's Society.

The Bodleian Library Commission having presented its report, Congregation unanimously passed a Decree, in accordance with its recommendations, that the enlargement and improvement of library facilities in Oxford should be carried out by: (a) the continuance of the historic Bodleian, mainly as an enlarged range of reading-rooms with direct and easy access to about roo,000 of the books most in demand; (b) the use of the ground floor of the Quadrangle for administrative offices, cloakrooms, and other purposes, including advanced teaching and research, at the Librarian's discretion; (c) the continuance of the upper floor of the Camera as a reading-room for undergraduates, with additional seating accommodation; (d) the use of the ground floor of the Camera as an exhibition room; (e) the concentration of storage in a special building on the Broad Street site, capable of holding about 5,000,000 books; (f) the preservation of the amenities of Broad Street by a front section screening the stack and containing (r) rooms for the reception, handling, and cataloguing of

books, and for the housing of special collections, and (2) a considerable amount of further free space at the Librarian's disposal; (g) the maintenance of a rapid service of books by mechanical means through a tunnel between the Bodleian and Broad Street; (h) some extension, at the discretion of the Librarian, of the privilege of direct access to the storehouse shelves; (i) the enlargement of the Radcliffe (Science) Library by the addition of a new wing; (h) the enlargement of the Taylorian Modern Languages Library on a site in St. Giles's adjoining the Institute; (l) the development of the existing system of subsidiary special libraries under the control of the Faculties by the provision of accommodation in a new building adjacent to the Examination Schools; (m) the preparation of a new working catalogue for the Bodleian; (n) an improvement in the salaries of the Bodleian staff.

Resolutions were also carried to the effect: (1) That it is expedient to take advantage of the erection in stages of a new library building to try experiments in library administration including the use of carrels and research rooms adjoining appropriate sections of the stacks. (2) That it is expedient, while land is still available, that a site for a repository for the storage of little-wanted books should be provided.

A Professorship entitled the Chichele Professorship of Economic History was established, the Warden and Fellows of All Souls having undertaken to provide a stipend of £1200 p.a. together with ten per cent p.a. of that sum as a contribution to the Federated Superannuation Scheme of the Universities. A University Lectureship in Engl. Lang. was also established by Statute.

The viva voce examn. both in Pass Modns. and in Holy Scripture was abolished.

Important changes were made in the Statute concerning College Contributions for Univ. purposes. It was provided inter alia that, in computing the net revenue of each Coll. for the purpose of assessing its contribution, there should be deducted in each year of every period of three calendar years after I Jan. 1931 the average annual expenditure during the 3 yrs. immediately preceding the commencement of each triennium on repairs in connexion with (a) the estates of the Coll. or 45% of the average of the gross rents of lands and houses let at rack rent (other than houses in Oxford used for Coll. purposes) during the same three years, whichever is the less, (b) the buildings and premises of the Coll. or houses in Oxford used for Coll. purposes.

It was further provided that the following deductions should be made In respect of expenditure on works, whether external or internal: (1) when the expenditure is met by a loan, any payments which the Coll. makes by way of interest, and in repayment of principal, or to a sinking fund for the liquidation of any loan; (2) when the expenditure is met out of revenue, the first £1000 or any less amount so expended in any one year. This is subject to the proviso that in the case of any loan contracted before Jan. 1, 1927, the deduction shall be reckoned in accordance with the provisions of the Univ. Statutes in force at the time when the loan was contracted.

A decree was passed by Congregation providing that women should be allowed to compete on the same conditions as men for the following Scholarships: Boden, Pusey and Ellerton, Derby, Charles Oldham, Welch, George Webb Medley, Gerrans, Scott, and de Osma Studentship.

Honorary Degrees. D.C.L.—Aimé Joseph de Fleuriau, G.C.V.O., French Ambassador; Rt. Hon. James Ramsay MacDonald, F.R.S., Prime Minister; Viscount Byng of Vimy, G.C.B., G.C.M.G., Commissioner of Metropolitan Police; Rt. Hon. Lord Irwin of Kirby Underdale, K.G., G.C.S.I., G.C.I.E., M.A., Hon. Student of Ch. Ch.; Rt. Hon. Lord Atkin of Aberdovey, M.A., Hon. Fellow of Magd. Coll., Lord of Appeal in Ordinary; Sir William

Richard Morris, Bt. D.Litt.—John Galsworthy, O.M., M.A., Hon. Fellow of New Coll.; John Livingstone Lowes, M.A., Fellow of Balliol Coll.; Paul Valéry, Member of the French Academy; Ernest William Tristram, Prof. at the Royal Coll. of Art; William Butler Yeats. D.Sc.—Albert Einstein, Prof. of Physics at the Univ. of Berlin; Charles Davies Sherborn.

Special Annual Lectures. The Romanes Lecture was delivered by John Galsworthy, O.M., M.A. (subject: "The Creation of Character in Literature"); the Halley Lecture by Arthur R. Hinks, C.B.E., F.R.S. (subject: "The Shape of the Earth"); the Herbert Spencer Lecture by Professor L. Levy Bruhl (subject: "Primitive Mentality"); the Taylorian Lecture by Hilaire Belloc (subject: "On Translation").

DEATHS. The deaths of the following may be mentioned: Cuthbert Hamilton Turner, Senior Fellow of Magdalen Coll, and Dean Ireland's Prof. of Exegesis, Oct. 10, 1930; Harry Reginald Holland Hall, Hon. Fellow and formerly Scholar of St. John's Coll., Keeper of Egyptian and Assyrian Antiquities, British Museum, Oct. 13, 1930; James Surtees Phillpotts, sometime Fellow of New Coll., Head Master of Bedford School, 1875-1903, Oct. 16, 1930; Very Rev. William Holden Hutton, Dean of Winchester, Hon. Fellow of St. John's Coll., Oct. 24, 1930; Rt. Rev. Ernest Harold Pearce, Bishop of Worcester, Hon. Fellow of Worcester Coll. and of Peterhouse, Cambridge, Oct. 28, 1930; Marshall Montgomery, University Reader in German, Nov. 14, 1930; Arthur Hassall, Student of Christ Church, 1884-1924, Nov. 21, 1930; Rev. Frederick Edward Warren, Hon. Canon of St. Edmundsbury, Dec. 20, 1930; Ernest Ely Genner, Fellow of Oriel Coll., Fellow of Magdalen Coll., 1899-1903, Fellow of Jesus Coll., 1903-26, Dec. 24, 1930; Arthur Anthony Macdonell, Prof. Emeritus, Hon. Fellow of Corpus Christi Coll., since 1920, Dec. 28, 1930; Lord Francis Hervey, Fellow of Hertford Coll., 1874-1920, Hon. Fellow, 1920-31, Jan. 10, 1931; George Thorn-Drury, K.C., Hon. Fellow of Worcester Coll., Recorder of Dover, Jan. 14, 1931; Right Rev. Archibald Robertson, Hon. Fellow of Trinity Coll., Bishop of Exeter, Jan. 29, 1931; Ven. Robert Henry Charles, Canon and Archdeacon of Westminster, Fellow of Merton Coll., 1910-1913, Jan. 30, 1931; Henry Oliver Beckit, Director of the School of Geography and Univ. Reader in Geog., Feb. 19, 1931; John Arthur James Drewitt, Fellow and Tutor of Wadham Coll., 1907-19, March 19, 1931; Thomas Vipond Barker, Sec. to the Curators of the University Chest and Fellow of Brasenose Coll., Apr. 15, 1931; Thomas Ashby, Research Student of Ch. Ch., May 15, 1931; Percy William Dodd, Fellow and Senior Tutor of Jesus Coll., May 20, 1931; Rev. William Hunt, Hon. Fellow of Trinity Coll., June 15, 1931; Rev. William Walrond Jackson, Rector of Exeter Coll., 1887-1913, Aug. 29, 1931.

STUDENTS. Full-time, 4658; research students, 173; preparing for first degree, 4226; other full-time students, 259. Matriculations, 1584.

Extra-mural tutorial classes; I advanced; Io three-year; I3 vacation. Total students enrolled, 751.

University Extension lectures, 168 at various centres, aggregate average attendance, 751. Of these courses 4 were in Hist., 5 in Lit., r in Music, 3 in Econ., and r in Nat. Sci.

DEGREES. B.A., 1121; M.A., 480; B.Litt., 50; B.Sc., 31; D.Sc., 4; B.C.L., 30; B.M., 37; D.M., 12; M.Ch., 2; B.Mus., 6; D.Phil., 18; D.D., 2; D.Litt., 2; D.Mus., 1; B.D., 3; D.C.L., 2.

# UNIVERSITY OF READING

VISITOR-H.M. THE KING.

CHANCELLOR-J. H. BENYON, M.A., Lord-Lieutenant of Berkshire.

VICE-CHANCELLOR-T. FRANKLIN SIBLY, LL.D., D.Sc.

PRESIDENT OF THE COUNCIL-LEONARD G. SUTTON, C.B.E.

TREASURER—Sir GEORGE R. MOWBRAY, BART., B.A.

REGISTRAR-H. KNAPMAN, M.A.

DEANS OF FACULTIES. See under "General Information"—Faculties.

Prof.

LIBRARIAN-S. A. PEYTON.

Bursar-J. S. Simpson, B.Sc.

## PROFESSORS, LECTURERS, ETC.

Agriculture, etc., v. infra

Art (School of Art)

Seaby, A. W.

Lecturers:

Pearce, C. C., R.B.A. (Design and Composition).

Yates, H. J. (Drawing and Painting)

Carter, A. C., A.R.B.S. (Modelling and Sculpture).

Ashford, Faith, B.Sc. Lond. (Educational Handwork).

2 Teachers.

Botany, v. also Agr.

Matthews, J. R., M.A. Edin, F.L.S. Prof.

Ingold, C. T., M.Sc., Ph.D. Belf.

Prankerd, Theodora L., D.Sc. Lond., F.L.S. Lectr.

Chemistry, v. also Agr. [Prof. Bassett, H., D.Sc. Lond., Ph.D. Mun., D. ès Sc. Nancy, F.I.C.

Dodgson, J. W., B.Sc. Lond.,
A.I.C. Lectr.

Maxted, D. R., B.Sc. Lond., A.R.C.S. Lectr.

Wynne-Jones, W. F. K., B.Sc. Ox., B.Sc. Wales Lectr. r C.

Durrant, R. G., M.A. Ox. Hon. Research Fellow.

Classics

Ure, P. N., M.A. Camb. Prof. Semple, W. H., Ph.D. Camb., M.A. Belf. (Latin) Reader.

Fisher, W. H., M.A. Camb. Lectr. Jolliffe, Norah C., M.A. Camb.

Lectr.
Ure, Mrs. A. D., B.A. Lond.
Hon. Research Fellow.

Commerce

Taylor, H., F.L.A.A. Lectr. Coman, Grace Asst. Lectr. I Asst.

Dairying, v. infra

Domestic Subjects Wood, Mrs. E. May

Lectr. in charge of Dept.

Henry, D. Mildred Asst. Lectr. Priestley, Beatrice A., O.B.E.

Asst. Lectr.
Smith, Winifred O. Asst. Lectr.
I Teacher of Needlework.

I Sessional Lectr. in Hygiene.

Economics

Buer, Mabel C., D.Sc. (Econ.) Lond. Lectr.

Stenton, Mrs. D. M., B.A. Lond. Education [Sen. Lectr. Lectr. Cooke, H. S., M.A. Ox. and Cape Peyton, S. A. Asst. Lectr. Lecturers: Blackwell, Mrs. A. M., B.Sc. Lond. Mathematics Campbell, Isabella E., M.A., B.Ed. Neville, E. H., M.A. Camb., B.Sc. Edin. Lond. Prof. Glason, J. A., M.B.E., B.A. Lond. Lecturers: Mitchell, W. F., B.Litt. Ox., M.A. Ashcroft, Lucy, M.A. Dub. Edin. Broadbent, T. A. A. M.A. Camb. Smith, E., B.Litt. Ox., M.A., B.Sc. Hargreaves, J., M.A., Ph.D. Camb. Liv. Ternouth, Elsie J., M.A. Glas. Wolters, A. W. P. (v. Psychology). 2 Teachers of Machine Drawing 2 Instrs. in Physical Training. and Applied Mechanics. English Language & Lit. [Prof. MusicDewar, R., M.A. Glas. (E. Lit.) Allen, Sir Hugh P., K.C.V.O., M.A. Morley, Edith J., M.A. Ox. (E. Camb., D.Mus. Ox., Mus.D. Lang.) Prof. Camb., D.Litt. Shef. Dyson, H. V. D., B.Litt., M.A. Visitor of School. Lectr. Stanton, W. K., M.A., B.Mus. Ox. Olszewska. Elizabeth S., B.A. Lectr. in Charge of School. Leeds Lectr. 13 Teachers. [Prof. French Philosophy Desseignet, J., Ag. de l'U. Paris de Burgh, W. G., M A. Ox. Prof. Gerson, G. H., M.A. Camb. Lectr. Hodges, H. A., B.A. Ox. Lectr. Paton, Dorothea A., M.A. Ox. ,, Salmon, Yvonne M. A., L. ès L. Physics Crowther, J. A., M.A., Sc.D. Lectr. Camb., F.Inst.P. Prof. [Lectr. Geography Gilbert, E. W., B.Litt., M.A. Ox. Bond, W. N., M.A. Camb., D.Sc., B.Sc. (Eng.) Lond., A.R.C.S., Miller, A. A., M.Sc. Lond. F.Inst.P. Morris, W. F., B.A. Lond. Sessional Asst. Lectr. Pearson, R. L. Lectr. Vedy, L. G., B.A. Camb., B.Sc. Geology Lond. Hawkins, H. L., D.Sc. Manc., F.G.S. Prof. Psychology Wager, L. R., B.A. Camb., B.Sc. Wolters, A. W. P., M.A. Lond. Lectr. Lond. (also Lectr. in Educn.) Lectr. Walder, Phoebe S., B.Sc. Lond. Oldham, Mrs. H. W., B.Sc. Lond., and Read. M.A.Sessional Lectr. Demr. and Museum Asst. Spanish [Sessional Teacher. German [Lectr. Edwards, P. C., M.A. Camb. Matthews, Evelyn, M.A. Wales Vet. Hygiene, v. Agric. History, Modern ΓProf. Stenton, F. M., M.A. Ox., F.B.A. Zoology

Cole, F. J., D.Sc. Ox., F.R.S. Prof.

Eales, Nellie B., D.Sc.Lond. Lectr.

Museum Asst.

Stoneman, W. E., M.A. Camb.

Childs, W. M., M.A., D.Litt. Ox.,

Aspinall, A., M.A., Ph.D. Manc.

Hon. Prof.

Lectr.

LL.D. Liv.

Agriculture and Horticulture	Mattick, A. T. R., B.Sc., Ph.D.
Agriculture Pennington, S., B.Sc. Edin., M.R.C.V.S. Prof.	Lond. Lectr. Maddock, E. C. G., C.I.E., M.D., Ch.B. Edin., D.P.H. Camb.,
Black, D. J. G., B.Sc. (Agric.) Edin. Lectr.	D.T.M. Liv.  Hon. Research Fellow.  Adviser and I Asst.
Campbell, K. W. D., B.Sc. Durh., M.Sc. Lectr.	Dairy Chemistry
Agr. Bacteriology, v. also Dairy B. Allen, L. A., B.Sc., Ph.D. Lond.,	Golding, J., F.I.C.  Research Chemist.
M.Sc. Lectr.  Agr. Botany	Assts for Research: Davies, W. L., Ph.D. Camb., M.Sc. Wales, N.D.A., F.I.C.
Percival, J., M.A., Sc.D. Camb., F.L.S. Prof. Erith, Adela G., B.Sc., Ph.D.	Kon, S. K., Ph.D. Warsaw. Mattick, Mrs. E. C. V., M.Sc., Ph.D. Bris.
Lond. Lectr. Waldie, J. S. L., B.Sc. Edin. Lectr. Robson, W. S., B.Sc. Durh. Demr.	Dairy Husbandry Mackintosh, J., O.B.E., N.D.A.,
I Asst.  Agricultural Chemistry	N.D.D. Head of Research Section
Neville, H. A. D., M.A. Camb., B.Sc. Lond., F.I.C. Prof.	and Lectr. r Asst.
Bee, J. W., M.A. Camb. Lectr. Nicholson, N. M., B.Sc. Glas., A.I.C.	Economic Entomologist Hodson, W. E. H., A.R.C.S., D.I.C.
Lectr. and Advisory Officer. Rowland, S. J., B.Sc. (Agric.) Lectr.	Economic Mycologist Buddin, W., M.A. Camb.
Thompson, J., Ph.D. Heid., F.I.C. Analyst.	Horticulture Cobb, A. J. Lectr. in Charge. Cook, H. H. Lectr.
Agric. Economics Thomas, E., B.Litt. Ox., B.Sc. Wales	Cook, H. H. Lectr. Hole, Doris R., B.Sc. Lond. Lectr. I Instructor.
Lectr. and Advisory Officer.	Machinery
I Asst.  Building Construct., etc.	Passmore, J. B., B.Sc. Lond., M.Sc. Lectr.
Hitchins, W. W., L.R.I.B.A., P.A.S.I. Lectr. I Asst.	Animal Physiology Peskett, G. L., M.A. Ox. Lectr.
Dairying Todd, A. Lectr.	Veterinary Hygiene Male, G. P., M.R.C.V.S. Lectr.
O'Shea, M. J., B.Sc. (Dairying) N.U.I. Lectr. I Instrucor, I Research Asst.	Veterinary Science Barron, N. S., M.R.C.V.S.  Vet. Surgeon and Advis-
Dairy Bacteriology	ory Officer.
Williams, R. Stenhouse, M.B., C.M., B.Sc. Edin., D.P.H. Camb. Research Prof.	University Extension Tutors, 4.
	, T'

British Dairy Institute (occupying a building on the University site and controlled by a committee representing the British Dairy Farmers' Assocn. and the University). Lecturer in Dairying—A. Todd. I Instr., I Asst. Instr.

The National Institute for Research in Dairying, Shinfield, near Reading, established by the Ministry of Agric. and Fisheries in 1912, forms part of the University. It is governed by a Board consisting of representatives of the Ministries of Agric. and Health, R.A.S. of England, British Dairy Farmers' Assocn., Nat. Farmers' Union, etc. It has five Depts.—Dairy Bacteriology, Dairy Chemistry, Dairy Husbandry, Physiology, and Dairying. See also App. XXIV. A. I. (d).

## GENERAL INFORMATION

The University was established by Royal Charter, March 17, 1926. For early history, see Yearbook for 1929.

LIBRARY, 55,000 vols., including Overstone collection (7500 vols.) of books on Polit. Econ. (pubd. before 1850), English and French thought during eighteenth century, and topography (especially Northamptonshire); 12,000 pamphlets. 200 periodicals are received. Museums: Zool. and Hist. and Archæol. Laboratories: Bacteriol., Bot., Chem., Geol., Mech., Physics, Psych., Zool. Fine Art Studios. School of Music. Agricultural Machinery Hall. Two farms (359 and 141 acres) and Horticultural Station.

FACULTIES: (1) Letters, (2) Science, (3) Agric. and Horticulture (associated with which are the National Inst. for Research in Dairying and British Dairy Inst.).

DEANS: (1) Prof. de Burgh (Philos.); (2) Prof. Crowther (Phys.); (3) Prof. Neville (Agr. Chem.).

Schools: Art, Music.

DEPARTMENT: Domestic subjects.

ADMISSION. Candidates for Degree courses must matriculate before admission (see Appendix XX.). Entrance examn. for Diploma courses in Commerce, Agric., Dairying, Hortic., Landscape Architecture, Domestic subjects.

Degrees: B.A., M.A., D.Litt.; B.Sc., M.Sc., D.Sc.; B.Sc. (Agric.), B.Sc. (Dairying), B.Sc. (Hortic.); Ph.D. The M.Sc. and D.Sc. are obtainable in the Faculty of Agriculture and Horticulture as well as in the Faculty of Science. The Senate may decline to admit to a degree course a person whose place of residence during term is at too great a distance from Reading, and the degree of Bachelor may not be granted to a candidate whose record as a student of the University is not deemed satisfactory.

The Charter provides that degrees representing proficiency in technical subjects shall not be conferred without proper security for testing the scientific or general knowledge underlying technical attainments.

An oral examination forms part of the Final examn. for a B.A. degree with honours, except in Mathematics, and, at the discretion of the Examiners, may form part of the Intermediate or of the Final Examn. for a Pass B.A. degree, or of the Intermediate or Final Examn. for the B.Sc. In the Final Examn for the B.Sc. candidates are examined upon either a General Course of study (3 subjects) or a special course; honours can be obtained in either case. The Final Examn. (Special) is ordinarily taken after passing the Final Examn.

(General). The course for the degree with honours extends over 4 years in Agriculture and in certain cases in Arts and in Science.

UNIVERSITY DIPLOMA COURSES are as follows: 2 yrs.—Agric., Commerce, Dairying, Domestic subjects, Hortic.; 3 yrs.—Landscape Architecture, Fine Art, Music, Distinction in Agric., Dairying, Domestic subjects, or Hortic. Univ. Diploma Course (post-graduate) in Education (1 yr.).

OTHER COURSES for Univ. Certifs. in Agric., Dairying (6 mos.), Commerce, Domestic subjects, Hortic., Secretarial subjects (1 yr.), Jewellery and Enamelling, Wood Carving, Woodwork, Embroidery, Leather Work, Weaving, Writing and Illuminating (2 yrs.), Dairy Factory Management (10 weeks); for the Pre-Medical examn. of the R.C.P. and R.C.S. (1 yr.), British Dairy Farmers' Assocn. examns. (6 mos.), L.R.A.M., A.R.C.M., etc.

TUTORIAL SUPERVISION. Every student following one of the organized day courses or a specially arranged day course involving frequent attendance at the Univ. for at least 2 terms is placed under the supervision of a tutor.

A RESEARCH BOARD promotes research and original work in the Univ. (apart from the National Institute for Research in Dairying). It administers funds entrusted to it for the purpose, and issues an annual record and report.

Terms. 3, each of 10 weeks, the first beginning on the first Friday in October. Vacations of 4 weeks at Christmas and 5 weeks at Easter.

RESIDENCE. All students following full courses of day study, unless residing with parents or guardians, are ordinarily required to reside in a University Hall of Residence. There are two Halls (Wantage and St. Patrick's) for men, and four (St. Andrew's, Wessex, St. George's, and Ashdown) for women students. Full-time day students living in recognized houses, or at home in or near Reading, are associated in St. David's Hall, a non-residential club.

SCHOLARSHIPS OPEN TO GRADUATES. Offered annually by the Univ.—£100; "Ernest Ridley"—£50 plus tuition fees, for one year, renewable for a second year.

FEES. For Tuition: Ph.D. course—£5 or £7 p.a.; M.A. course—£5 p.a.; M.Sc. course—£7 p.a.; Bachelor's Degree course—Arts, £30 p.a.; Sc. or Agric. or Dairying or Hortic., £35 p.a.; Diploma course—Commerce, £25 p.a.; Agric. or Hortic. or Landscape Architecture or Domestic subjects, £30 p.a.; Dairying, £35 for 1st, £41 for 2nd year; Fine Arts, £18; Certif. course—£18 to £30. Tuition fees are in most cases reduced by 25 per cent. to students from neighbouring counties, under certain conditions.

EXPENSES. Total average necessary yearly expenses (excluding travelling, clothing, and personal laundry) about £120 p.a., namely: (i.) Registration, matriculation, cap and gown, tuition, examination, and graduation, average £38 p.a. for a degree student; for diploma or certificate student somewhat less. (ii.) Maintenance, including board and lodging in Halls or lodgings and sanatorium fee, maximum for 30 weeks about £77 for a man and £69 for a woman student. (iii.) Personal, including subscription to Union (3 gs. p.a.), and cost of books and stationery, widely variable, say £6 p.a.

Courses of lectures open to the public are ordinarily charged for at 15s. per term (30s. per session) for each subject (one hour per week).

STUDENT ORGANIZATIONS: Students' Union and Representative Council. An Old Students' Association meets annually at the Univ. at Whitsuntide.

University Extension, etc. Agriculturists are helped by correspondence,

visits, local lectures, examination of diseased plants, etc. Evening classes are held in Machine and Building Constn., Builders' Quantities, and most of the subjects in which Day courses are provided. Tutorial classes are held in connexion with the W.E.A.

Publications. Calendar; University Gazette; General Prospectus (including illustrations and plans); Departmental Prospectuses (Degree courses, Training of Teachers, Commerce and Secretarial, Agriculture, etc., Fine Arts and Handicrafts, Music, Domestic subjects); Scholarships and Exhibitions; Guide to Evening Classes, 2d.

# THE YEAR 1930-31

BENEFACTIONS. By the Misses Stansfield, of Reading, three scholarships, £50 p.a. each, for women students reading for a degree in the Fac. of Sci. or the Fac. of Agric. and Hort. Other gifts include £271 from the Friends of the Univ., £100 from Mr. H. G. Willink for books or pictures for the Women's Halls of Residence, and £100 for the Library from Mr. R. H. Mardon. Miss C. A. Monckton, of Crowthorne, presented the natural history collections made by the late Mr. H. W. Monckton.

New Buildings. The first two of the new buildings on the main Univ. site are in use. One accommodates the dept. of Geol.; the other contains the dept. of Geog. and lecture rooms for the Fac. of Letters.

New Posts. A Readership in Latin (replacing a Lectureship) in the dept. of Classics. An Advisory Veterinary Officer for the Southern Province, the cost met by a grant from the Ministry of Agriculture.

RETIREMENTS. Dr. Alfred Palmer (President of the Council). F. T. Bowler (Applied Mechs.). W. Haigh (Classics and German). S. G. Jary (Econ. Entomol.). N. H. Pizer (Agric. Chem.). The Hon. Eleanor M. Plumer (Warden of St. Andrew's Hall). J. H. Sacret (Mod. Hist.). J. Thomson (Physics). Miss D. Vincent (Music).

DEATHS. Sir William A. Mount (Treasurer of the Univ.). J. H. Baker (Applied Mechs.). B. Patterson Parker (Music).

STUDENTS. Full-time: total, 626, including 70 graduates. Part-time: total, 979, including 12 graduates.

DEGREES. B.A., 35; B.Sc., 36; B.Sc. (Agric.), 13; B.Sc. (Dairying), 3; B.Sc. (Hortic.), 4; M.A., 4; M.Sc., 2; Ph.D., 3.

# THE UNIVERSITY OF SHEFFIELD

VISITOR-H.M. THE KING.

CHANCELLOR—The Most Hon. the Marquess of Crewe, K.G.

PRO-CHANCELLORS-Lt.-Col. H. K. STEPHENSON, D.S.O., D.L., LL.D.; Sir Wm. E. Clegg, C.B.E., LL.D.

VICE-CHANCELLOR—A. W. PICKARD-CAMBRIDGE, M.A., D.Litt.

Treasurer—W. N. Drew, A.R.S.M., M.I.Chem.E.

DEANS OF FACULTIES. See under "General Information"—Faculties.

REGISTRAR-W. M. GIBBONS, O.B.E., M.A.

LIBRARIAN—A. P. HUNT, B.A.

# PROFESSORS, LECTURERS, ETC.

[A. Jackson Prof. Anatomy Patten, C. J., M.A., M.D., Sc.D. Dub., F.R.A.I.

Naish, Mrs. Lucy, M.B. Lond. (Osteology) Lectr.

MacConaill, M. A., M.B., B.Ch., B.A.O., M.Sc. Belfast

Senr. Lectr. and Demr. Yates, H. B., M.A., M.B. Camb., F.R.C.S. (Surg. Anat.)

Lectr. and Demr.

Architecture

Welsh, S., M.A., B.Arch. Liv., Lectr. A.R.I.B.A. Hon. Lectr. for Evening Courses.

Leighton, H. B., M.A., A.R.I.B.A. Asst. Lectr.

Poulter, A. E., A.R.C.A.

(Freehand Drawing and Sketching) Hon. Lectr.

Art, v. Civic Art

Biology, v. Zool. and Botany

Botany

Bentley, B. H., M.A. Ox. Lind, Edna M., B.Sc., Ph.D. Liv. Asst. Lectr.

Boswell, J. G., M.Sc. Lond.

Asst. Lectr.

Chemistry

Bennett, G. M., M.A. Camb., B.A., Ph.D. Lond. Firth Prof. Chapman, A. W., D.Sc. Lond. Lectr. (Organic C.).

Glasstone, S., Ph.D., D.Sc. Lond. Lectr. (Phys. C.)

Asst. Lectrs. :

Turner, Emily G., M.Sc. Bennett, Dorothy M., M.Sc. Smith, T. B., B.Sc. Lond. Speakman, J. C., M.Sc., Ph.D. Iones, B., B.Sc., Ph.D. Wales.

Civic Art

Prof. . . . . . .

Classics

Forster, E. S., M.B.E., M.A. Ox., Prof. F.S.A. (Greek) Craig, J. D., M.A., D.Litt. St. And., B.A. Ox. (Latin) Firth Prof.

Tredennick, G. H. P. P., M.A. Camb.

Maguinness, W. S., M.A. Dub. Asst. Lectr.

Dentistry, v. infra

Economics

Prof. Knoop, D., M.A. Manc. Jones, G. P., M.A. Liv.

(Econ. Hist.) Lectr.

Pool, A. G., B.Sc. (Econ.) Lond. Bevan, E., B.Sc. (Min.) Lond. Lectr. Lectr. Sinclair, J., M.Eng. Education Lectr. Turnbull, G. H., M.A. Liv., Ph.D. Cooke, W. E., M.Eng. Bonn Research Asst. Lectrs.: English Lang. and Lit. Bradford, E. J. G., M.Sc. Lond. Evans, B. I., M.A. Lond. King, Etheldreda, B.A. Lond. (Eng. Lit.) Prof. Jones, J. D., M.A., B.A. Lond., Thompson, J. Ridley, D.Sc. Durh. Dickinson, Olive D., M.Sc. Ph.D. Berl. Halloran, J. H., M.A. Leeds. (Eng. Lang.) Lectr. Sargeaunt, M. Joan, B.A. Ox. Hamer, D., M.A. Liv. Lectr. Reynolds, W. V., B.A. Ox Engineering, Civil Asst. Lectr. Husband, Joseph, M.Eng., French F.R.C.Sc.I., M.Inst.C.E., M. Baker, A. T., Litt.D. Camb., Am. Soc. E., M. French Soc. Ph.D. Heid. Prof. C.E., M.I.Struct.E. Clapton, G. T., M.A. Lectr. Snelgrove, E. C., M.I.Struct.E., Boase, A. M., M.A. Ox. Lectr. M. French S.C.E. Lectr. Remords, G., L. ès L. Paris Jenkins, J., M.Sc. Belf. Lectr. Asst. Lectr. Engineering, Elec. Geography Wall, T. F., D.Sc. Vict., D.Eng. Brown, R. N. Rudmose, D.Sc. Liv., M.I.E.E. Lectr. Aberd. Prof. Asst. Lectrs.: Garnett, Alice, B.A. Lond. Hainsworth, C. H. Asst. Lectr. Joyce, T. C., B.Sc. Lond. & Bris. Geology [Sorby Prof. Barratt, N. M., B.Sc. Tech. Manc. Fearnsides, W. G., M.A. Camb. Lloyd, H., M.Eng. Wilcockson, W. H., M.A. Camb. (Wireless Telegraphy) Demr. Lectr. Engineering, Mechanical Shirley, J., M.Sc. Manc. Lea, F. C., O.B.E., D.Sc. Lond. (Mining G.) Asst. Lectr. A.R.C.S., M.I.C.E., M.I.M.E. German Prof. Dunstan, A. C., B.A. Lond., Ph.D. Boulden, F., B.Sc. Lond., M.Eng., Kœnigs. Lectr. M.I.M.E. Senr. Lectr. Zettl, Eward, Ph.D. Innsb. Kershaw, J. W., M.Sc. Manc., M.Eng. Senr. Lectr. History Hibbins, W. G., B.Sc. Lond., Woodward, A. M., M.A. Ox. B.Eng. (Ancient H.) Lectr. Waite, C. W., B.Sc. Lond. Lectr. Potter, G. R., M.A., Ph.D. Camb. Davies, H. J., M.Sc. Lond. Lectr. (Mod. H.) Prof. Turner, F. C, M.Eng. Lectr. Lewis, N. B., M.A., Ph.D. Manc. Asst. Lectrs. : (Modern H.) Lectr. Burnet, W. Tyler, J. E., M.A. Shef. and Ox. Parker, C. F., B.Sc. Lond. (Modern H.) Lectr. Engineering, Mining Law[Prof. Statham, I. C. F., B. Eng., Trotter, W. F., K.C. (Scot.), LL.D., M.I.M.E. Prof. M.A. Camb.

Lectr.

Asst. Lectr.

Asst. Lectrs.:

Evans, Morgan H., B.Sc. Wales.

Cameron, W. H. B., M.Sc. Belf.

Metcalfe, O. K., M.A., LL.M. (Pub.

and Com. L.)

Stone, H., LL.M.

Downing, F., A.C.A. Elliott, A., B.Sc., Ph.D. Durh., Tutor in Trust Accounts, etc. Sc.D. Utrecht. Mathematics Physiology Daniell, P. J., M.A., Sc.D. Camb. Leathes, J. B., M.A., M.B., B.Ch. Town Trust Prof. Ox., F.R.C.S., F.R.C.P., Stewart, C. A., M.A., D.Sc. Glas., F.R.S. Prof. B.A. Camb. Lectr. Eaves, Eliz. C., B.Sc., M.D., B.S., Cox, R. R. S., M.A. Camb. D.P.M. Lond. Lectr. Lectr. and Curator of Imrie, C. G., M.D. Westn. Ont., Observatory. M.R.C.P. Lectr. Asst. Lectrs.: Clark, G. A., M.D. Durh. Lectr. Slocombe, C. T., M.Sc. Wales. Gumpert, T. E., M.B., Ch.B., MacIntyre, A. J., B.A. Camb. M.R.C.P. Demr. Andress, W. R., B.A. Camb., B.Sc. Public Health, v. Medicine Manc. (Engin. Dept.) Medicine, v. infra Russian Birkett, G. A., M.A. Liv. Lectr. Metallurgy, v. also Tech. Andrew, J. H., D.Sc. Manc. Prof. Spanish [Hughes Lectr. Knowles, F. K., M.Met. (also Lectr. Birch, J. N., B.A. Lond. in Dental M.) Sen. Lectr. de Fenn, Beatriz, L. ès L. Ibbotson, F., B.Sc. Lond., D.Met., Asst. Lectr. F.R.C.S.I. (also Lectr. in Technology, Fuel Dental M.) Sen. Lectr. Wheeler, R. V., D.Sc. Manc. Prof. Wreaks, J. H., B.Met. Lectr. Batley, W. A., M.Sc. Manc. Lectr. Orme, F., M.Met. Lectr. Wigginton, R., M.Sc. Lond., Rees, W. J., B.Sc.Tech. A.R.C.S. Lectr. (Refractories) Lectr. Rees, W. J., B.Sc. Tech. (Electro-M.) Lectr. (Refractories) Lectr. Asst. Lectrs.: Beet, A. E., B.Met. Demr. Percival, R. T. Mott, R. A., M.Sc. Leeds Gregory, E., B.Sc. Lond. Research Asst. Mining, v. Engin., Geol. Technology, Glass Turner, W. E. S., O.B.E., D.Sc. Music Lond., M.Sc. Birm. Prof. Shera, F. H., M.A., Mus.M. Camb. Parkin, M., M.Sc. Lectr. James Rossiter Hoyle Prof. Winks, F., M.Sc.Tech. Asst. Lectr. Philosophy [Lectr. Research Assts.: Laing, B. M., M.A., D.Litt. Aberd. Dimbleby, Violet, M.Sc. Warren, W. J. A., B.Sc. Durh. Physics Milner, S. R., D.Sc. Lond. and Howarth, J. T., M.Sc. Manc., Bris., F.R.S. Prof. Ph.D. Lawson, R. W., D.Sc. Durh. Longmuir, B., B.Eng. Seddon, E., B.Sc., Ph.D. Leeds Lectr. Research Physicist. Clarke, J. R., M.Sc. Lectr.

Barnes, A. E., M.B. Lond., M.B., Research Fellows: Ch.B., F.R.C.P. Preston, E., B.Sc. Birm. Waterman, S. C., B.Sc. Lond., Skinner, E. F., M.A., M.B., B.C. Camb., F.R.C.P. Lectr. D.I.C. Yates, A. G., M.A., M.D., Ch.B. Zoology Edin., F.R.C.P. Prof. Eastham, L.E.S. Imrie, C. G., M.D. Westn. Ont., Graham, A., M.A., B.Sc. Edin. M.R.C.P. Lectr. r other Clin. Teacher. Medicine Obstetrics and Gynæcology (for subjects of first 2 yrs.—Anat., Phillips, Miles H., M.B., B.S. etc., v. supra) Lond., F.R.C.S. Prof. Bacteriology King, W. W., M.B., Ch.B. Bris., Edington, J. W., M.D., D.P.H. F.R.C.S. Edin. Dir. of P.H. Bact. Lab. Chisholm, J., M.B., Ch.B. Edin., Prof. F.R.C.S. Brown, Dorothy, M.B., Ch.B. Stacey, J. E., M.D., B.S. Lond., Asst. Bacteriologist. M.B., Ch.B., F.R.C.S. Dermatology (Gyn. Anat.) Lectr. Hallam, A. R., M.D., Ch.B. Edin. Ophthalmology Lectr. Hay, Percival, M.D. Edin. Lectr. I Clinical Teacher. Mackie, E. G., M.A. St. And., Diseases of Children M.B., Ch.B. Glas., D.O.M.S. Leader, H., M.B. Lond., M.R.C.S., (Ophthal. Anat.) Lectr. Lectr. L.R.C.P. 3 other Clin. Teachers. 3 other Clin. Teachers. Pathology Dis. of Ear, Nose, and Throat Florey, H. W., M.D., Ph.D. Townrow, V., M.B., B.S. Lond., Joseph Hunter Prof. Lectr. F.R.C.S. Yates, H. Blacow, M.A., M.B. Cobb, J. H., M.B., Ch.B., M.B., Camb., F.R.C.S. B.S. Lond., F.R.C.S. Lectr. (Surgical P.) and Lectr. (Aural Anat.). Asst. Cur. of Path. Diseases, Infectious Museum. Williams, E. H., M.D. Brus., Harding, H. E., B.A., B.M., B.Ch. M.R.C.S., L.R.C.P., D.P.H. Lectr. Kirk, Florence S., M.B., Ch.B. Diseases. Mental Glas., D.P.H. Camb. Demr. Vincent, W., M.D., B.S. Durh., Dawbarn, R. Y., M.D. Liv., M.B., M.R.C.S., L.R.C.P. Lectr. B.S. Lond. Owen, T. K., M.Sc., M.B., Ch.B., Forensic Medicine Webster, J. M., M.A., M.B., Ch.B.. M.R.C.P. B.Sc. St. And., F.R.C.S. Pharmacology Lectr. Mellanby, E., M.A., M.D. Camb., History of Medicine F.R.C.P., F.R.S. Wilkinson, G., B.A., M.B., B.C. Harrison, D. C., B.Sc. Lond., Camb., F.R.C.S. Ph.D. Camb. Lectr. Lectr. 5 Research Assts. Medicine Naish, A. E., M.A., M.D. Camb., Public Health [Prof. F.R.C.P. Prof. Rennie, J., M.D. Aberd., D.P.H. Clark, J., M.D. Aberd., D.P.H.

Demr.

Radiology

Grout, J. L. A., F.R.C.S. Edin., D.M.R.E. Camb. Lectr. Clin. Teacher.

Surgery
Simpson, G. S., F.R.C.S. Prof.
Cuff, A., B.A., M.B., B.C. Camb.,
F.R.C.S. Lectr.

Lectrs.:

Finch, E. F., M.D., M.S. Lond., F.R.C.S.

Wilson, J. B. F., M.S. Lond., F.R.C.S.

Brockman, R. St. L., M.A., M.Ch. Camb., F.R.C.S.

Mouat, T. B., M.D., Ch.M. Edin., F.R.C.S. (Op. Surg.) Demr. Lytle, W. J., M.B., Ch.B., B.A.O. Belf., F.R.C.S. Tutor.

2 other Clin. Teachers.

Tuberculosis [Lectr. Turner, H. M., M.D. Manc., D.P.H.

Vaccination

Chisholm, J., M.B., Ch.B. Edin., F.R.C.S. Lectr.

Anæsthetics

Instructors:

Holroyd, J. B. H., M.R.C.S., L.R.C.P.

Marshall, G. G., M.B., Ch.B. Mart, W. D., M.R.C.S., L.R.C.P.

Mart, W. D., M.R.O.S., E.R.O.T.

Birks, F. J., M.B., Ch.B. Robertson, R. K., M.A., M.B., Ch.B. Willey, H. L., M.B., B.Ch.

## Dentistry v. also Met.

Law, W. J., L.D.S., R.C.S. (D.

Anat. and Physiol.) Lectr. Froggatt, G. H., M.D.S., M.R.C.S., L.R.C.P., L.D.S., R.C.S. (D. Mech. and D. Surg.) Lectr.

Stokes, P. S., M.D.S., L.D.S., R.C.S. (D. Surg.) Lectr.

Hull, J., L.D.S. (Dent. Surg.)

Asst. Lectr. Watson, C. T., M.D.S., L.D.S.,

R.C.S. (Orthod. and Op. Dent. Surg.)

Lectr.

Barron, D. C., M.D., Ch.B. Edin. (Med. for Dent. Students)

Lectr.

Skerritt, J. H., M.D.S., L.D.S., R.C.S. (Op. Dent. Surg.) Lectr.

Adams, J., M.B., B.Ch.

Anæsthetist.

Heald, R. H., L.D.S.

Demr. (Dent. Hist.).

2 other Clin. Dental Teachers.

### Adult Education

Tutors: 8 members of the Staff and 17 others.

#### AFFILIATED INSTITUTIONS

Barnsley Mining and Technical College, Scunthorpe Central School and Evening Technical School, Lincoln Municipal Technical School, and Chesterfield Technical College. Students proceeding from "Affiliated Institutions" to the Univ. to take courses for an Honours degree or Associateship in the Facs. of Engineering or Metallurgy may receive certain concessions.

#### GENERAL INFORMATION

University College, Sheffield, incorporated by Royal Charter in 1897, was in 1905 merged in the University of Sheffield constituted by Royal Charter in that year. The city being an important centre of steel, electro-plate, glass, and other manufacturing industries, and in the heart of an extensive coalmining area, students of Engineering, Metallurgy, Mining, Fuel Technology, and Glass Technology have exceptional opportunities.

LIBRARY, 108,000 vols. and pamphlets, including collections of books on alchemy and early history of chemistry (J. Spear Parker's), facsimiles of Greek papyri (J. H. Moulton's), literature relating to Polychæte worms (A. T. Watson's), and seventeenth-century tracts, plays, etc. (Sir Chas. Firth's); 352 current periodicals. Also Special Applied Science and Glass Technology departmental collections.

RESEARCH DEPARTMENT LABORATORIES include: Engineering (mech., elec., civ., and mining), with power plant, air-compressors, refrigerating plant, hydraulic appliances, testing machines, special apparatus for high temperature and repeated stress testing, the testing of cement and concrete and for measuring earth pressures, high-speed steel tool-testing lathe, etc., the machine-tool branch being a special feature; Jonas lab. specially equipped for researches in connexion with materials; Edgar Allen lab. specially equipped for electrical and magnetic research work; labs. equipped with alternating current and direct current motors and generators for work on lighting, traction, power transmission, electricity applied to mining, electro-chemistry, apparatus for magnetic, photometric, and meter testing; high-frequency oscillographs (Duddell and Cathode Ray); Metallurgical, with plant for experimental melting of steel. including 2-ton Siemens open hearth furnace; \frac{1}{2}-ton electric arc furnace, cupola, and Ajax-Northrup high-frequency induction furnace, crucible steel-melting house, and equipment for thermal, micrographic, X-ray, dilatometric and other physical investigations; specially equipped lab. for electro-deposition of metals; lab. with rolling mill and draw bench for research on cold-working of steel; Non-Ferrous, equipped for the lighter Sheffield trades; Glass Technology, electric, gas and oil-fired furnaces for melting glass in quantities from the minute scale up to 120 lbs.; Research labs. for the physico-chemical, thermal, electrical, mechanical, spectrographic and general optical investigations on the properties of glass; Fuel Technology, including an experimental gas-producer, run in connexion with the steel-melting furnace of the metallurgical dept., coke-testing apparatus, and specially equipped labs. for research on coal, coke, and gaseous explosions.

OBSERVATORY with 6½" equatorial telescope and 2¾" transit instrument. Hospitals available for clinics include 2 general (840 beds), 3 special (1226 beds), and Mental Hospital (1900 beds).

FACULTIES. (1) Arts, (2) Pure Science, (3) Medicine (including the Dental Dept.), (4) Law, (5) Engineering (Depts. of Mech., Elec., Civ., and Mining E., Fuel Tech., Glass Tech.), and (6) Metallurgy (Ferrous and Non-Ferrous). Deans: (1) Prof. Turnbull (Education), (2) Prof. Fearnsides (Geology), (3) Prof. Douglas (Pathology), (4) Prof. Trotter (Law), (5) Prof. F. C. Lea (Mech. Engineering), (6) The Vice-Chancellor (temporarily). There is a Univ. Training Coll. Dept. for Teachers for elementary and secondary schools. Dept. of Glass Technology: The Dept. is unique in being the only specialized dept. devoted to glass in any Univ. in the Empire or U.S.A. Opportunities of research into the theory of the vitreous state and into problems of glass technology are provided for in a series of special labs, and in a large glass-melting dept, capable of producing experimental glasses in quantities from a few grams to 120 lb. Faculty of Metallurgy: The courses in Metallurgy include, in addition to the ordinary subjects of a metallurgical training, special instruction in the magnetic properties of steel, and practice in the use of large-scale plant. Post-graduate courses are arranged for graduates in Pure Science or in Metallurgy.

MATRICULATION. See Appendix XX.

Degree Courses. 3 yrs.—B.A. (with Honours in Archit.—5 yrs., including time spent in an Architect's office), B.Mus., B.Sc., LL.B., B.Met. (3 yrs.' evening

courses may be taken by students of 20 yrs. of age in lieu of the 2nd and 3rd yrs.' day courses), B.Eng. ("Sandwich" course 4 yrs.), B.Sc.Tech. ("Sandwich" course 4 yrs.); B.Eng. Honours and B.Sc.Tech. Honours, 3 yrs. after passing Intermed. Examn.; 5½ yrs. (including 3 in the Univ.)—M.B., Ch.B.; 5½ years.—B.D.S. Graduates of a Univ. of the U.K. who wish to qualify for B.A. or B.Sc. with Hons., or LL.B., need, under certain conditions, only attend courses for 2 yrs., if they have pursued a course for 2 yrs. at some approved instn. Graduates of a Univ. of the British Empire who wish to qualify for B.Met., B.Eng., or B.Sc.Tech. with Honours need, under certain conditions, only attend courses for 2 years (for B.Eng., B.Sc.Tech. or B.Met. pass degree, one year) if they have pursued a course for 2 years at some approved institution.

Attendance on approved courses at a Univ. or Coll. recognized for the purpose may be accepted as equivalent to such courses in the Univ. The Univs. of Paris, Caen, Besançon, Grenoble, Leipsic, Freiburg, Göttingen, Tübingen, and Giessen have been recognized in the Faculty of Arts, and the Univ. contributes towards expenses of undergraduates spending a term there.

A Secondary Schools Council, including, in addition to members of the Univ. staff, representatives of local education authorities and school staffs, keeps the Univ. in touch with secondary educn.

HIGHER DEGREES. Obtainable by Bachelors of r yr.'s standing—M.A., M.Sc., L.L.M., M.Eng., M.Sc. Tech., M.Met., M.D.S.; 3 yrs.—M.D., Ch.M.; 5 yrs.—Litt.D., D.Sc., LL.D., D.Eng., D.Sc.Tech., D.Met.; open under certain conditions to graduates in Arts of any Univ. of the U.K. after 2 yrs., to graduates of Facs. other than Arts after 3 yrs., of advanced study or research in Sheffield—M.A.; open, under certain conditions, to graduates in Science of any Univ. of the U.K. after 2 yrs. of advanced study or research in Sheffield—M.Sc.; open, under certain conditions, to graduates in Science or Engin. of any Univ. in U.K. after 2 yrs. of advanced study or research in the Univ. of Sheffield—M.Eng., M.Sc.Tech.; Ph.D., v. p. 18.

DIPLOMAS. Archit., 5 yrs. (including time spent in an Architect's office); Mod. Lang. Teaching (graduates in Arts or others of similar attainments in the Lang.), I yr. course; Educn. (after graduation), I yr. (special facilities for Pedagogical research); L.D.S., 4 yrs.; Glass Technology, 3 yrs. (for those with 2 yrs.' practical experience, 2 yrs.); Associateship in Engin., 3 yrs. (Works Pupils and Evening students, 4 yrs.); Associateship in Iron and Steel or Non-Ferrous Met., 3 yrs. (evening students, 4 yrs.); Mining, 3 yrs. full-time course or 4 yrs.' "Sandwich" course (1st year, full-time at the Univ., Oct. to June inclusive; other years 6 mos. in Colliery and 6 in Univ.; exemption from first yr. obtainable through examn. The Dipl. enables a student to sit for the examn. for a colliery manager's certif. after 5 yrs.' total training, including the time spent in the Univ.); Fuel, 4 yrs. (for those with 1 yr.'s experience in a Works Fuel Dept., 3 yrs.); exemption from first yr. in special cases. Associateship in Fuel for Evening Students, 4 yrs.

Certificates in Architecture (3 yrs.); Works Pupils in Engin. (3 yrs.); Glass Technology (3 yrs., Saturday or Evening Students).

FEES. Matricn. £2. Registn. 21s. p.a. (Diploma courses, except L.D.S.) or 25s. p.a. Degree courses (except M.B., Ch.B., and B.D.S.). Tuition for degree courses (approximate): B.A. and B.Mus., £26:13:4 p.a.; B.Sc., £35 p.a.; LL.B., 11 gs. p.a.; B.Eng., B.Met., B.Sc.Tech. (Glass or Fuel), £41:10s. p.a.; 'Sandwich' course for B.Eng., 4 yrs., £31:5s. p.a.; M.B., Ch.B., £238 for 5½ yrs.' course, including hospl. fees; B.D.S., £250 for 5 yrs.' course, including Mech. Dent. Examns., Interm., £2; Final, Pass Degree, £2; Honours, £3

(M.B., Ch.B. or B.D.S. examns., £6 each of 3). Bachelor's Degree Fee, £6 (except M.B., Ch.B., £1).

Note. To students from outside the British Empire an additional 20 per cent is charged on all fees.

Scholarships, etc., for Graduates. Sorby Research Fellowship (administered by Royal Society), v. App. XXIII. 17; Ironnongers. Company Research Fellowship and Research Scholarships, v. App. XXIII. 4; Alfred Tongue Scholp., £100 for 1 yr. for research in Engin., Met., or Chem.; George Scnior Fellowships, £125 p.a., 2 offered annually for research, one in Engin. and one in Met.; 4 Styring Research Scholps., £100 p.a. for research in ferrous and non-ferrous metals; Cutlers' Company Scholp., £100 p.a. for 2 yrs.; 2 Glass Research Fellowships, £175 and £200; Mechanics Institute Scholp., £50 p.a. for 1 yr., together with fees for courses taken by the holder, for research in one of the Depts. of the Univ.; Frederick Clifford Scholp., £50 p.a. for 2 yrs., for research in one of the Depts. of the Univ.; Ezra Hounsfield Linley Postgraduate Scholp., £75 to £100 p.a. for 1 yr., for research in Engin. or Met. or Physics or Chem.; Town Trustees Fellowship, £75 p.a. for 1 yr., for research in one of the Depts. of the Univ.

Herbert Hughes Travelling Scholarships in Spanish, £25 each, are for one month of Study in Spain during the long vacation.

RESIDENCE, ETC. Stephenson Hall, for men; fees per session, £90. Univ. Halls for women, Oakholme, Tapton Cliffe, and Endcliffe House, £55 to £76 per session. A list is maintained of Lodgings supervised by a Special Committee; board and lodging cost from 27s. 6d. to 40s. per week. Athletics ground, 18 acres. The Union Rep. Council takes a leading part in the Social life of the Univ. Separate Students' Unions for men and women.

APPOINTMENTS BOARD. Secretary: J. R. Clarke, M.Sc., F.Inst.P.

There is an OLD STUDENTS' assocn, which publishes periodically lists giving addresses, occupations, honours, etc.

University Extension work includes Tutorial classes, Free Extension Lectures, Collaboration (for Adult Educn. Lectures) with the Sheff. Educn. Committee.

Evening Classes in Mechanical Engineering, in General Science, Engineering, Metallurgy, Mining, Fuel, and Glass Technology, Building and Manual Training are held during the 6 months Oct. to April, and Trades Technical Classes are held in association with the Sheffield Trades Technical Societies. 54 additional lecturers and teachers are employed on this work besides the regular staff. For notes on the extent to which these classes are recognized as qualifying for degrees, etc., v. supra—Degrees, Diplomas.

Evening Classes are also provided in French, Russian, Spanish, German, Philosophy, Econ., Secretarial Practice, Acctoy., Law, Music, and Archit.

Publications. Calendar (Oct.), 5s.; The Arrows, a Chronicle pubd. once each term, annual subs., 1s. 6d.; Annual Report in Nov.; Fac. and Training Coll. Prospectuses; Scholarships pamphlet.

## THE YEAR 1930-31

BENEFACTIONS. From the Miners' Welfare Committee a further grant of f11,210 towards the cost of the new buildings for the Mining Dept. From the Institution of Mechanical Engineers a further grant of f50 to the Prof. of Mech. Engin. for research work. From the Pilgrim Trust, f300 as a loan fund for students.

NEW BUILDINGS. The Mining Dept. completed.

New Posts. Asst. Lectureship in Bot.; Lectureship in Educn.

OTHER DEVELOPMENTS. The University Athletic Ground extended.

New Ordinances and Regulations. Ordinances and regulations have been made for the establishment of a degree of Bachelor of Music.

EXTRA-MURAL WORK. During the year 1930-31, 54 Tutorial Classes and 6 Extension Courses were held.

VISITS OF TEACHERS FROM OTHER UNIVERSITIES. Prof. Lascelles Abercrombie, Univ. of London, gave a lecture on *The Eneid of To-day*. Prof. R. Guyot, Univ. of Paris, gave a lecture on *Clemenceau*. Prof. E. Tonnelat, Univ. of Paris, gave a lecture on *Culture allemande et Culture française*: contrastes et rapprochements.

VISITS OF MEMBERS OF THE STAFF TO OTHER UNIVERSITIES. Prof. E. S. Forster, 25 lectures at the Univ. of Manchester on Classical Sculpture. Prof. D. Knoop on Economics of the Weather to the Leeds Univ. Economic Society. Prof. G. M. Bennett on Some Recent Developments in the Stereochemistry of Sulphur to the Manchester Univ. Chemical Society and to the Chemical Society of Bedford College, London. Dr. R. N. Rudmose Brown on Lower Burma and its Pearl Fisheries to the Liverpool Univ. Geographical Society. Prof. C. J. Patten on Light-Stations as Observatories for Bird Migration to the Birmingham Univ. Zoological Club. Prof. Desch on Mosaic Structure in Crystals to the Oxford Univ. Alembic Club.

RETIREMENTS. Prof. H. W. Appleton (Ancient Hist.); Prof. W. P. Wynne (Chem.); Prof. A. J. Hall (Med.); Miss F. E. Hollis (Warden of Univ. Hall).

RESIGNATIONS. Mr. W. M. O. White (Engl.), appd. Lectr. in Engl. Lit. in Queen's Univ., Belfast; Rev. E. H. Ward (Eccles. Hist. and Warden of Stephenson Hall), appd. Principal of Lichfield Theol. Coll.; Prof. Cannon (Zool.), appd. Prof. of Zool. at the Univ. of Manchester; Dr. R. Cooper (Maths.) appd. Lectr. in Maths. in Queen's Univ., Belfast; Dr. F. C. Chalklin (Physics), appd. Lectr. in Physics in Univ. College, London; Mr. H. P. Lewis (Geol.), appd. Prof. of Geol. in the Univ. Coll. of Wales, Aberystwyth; Dr. C. G. Paine (Pathol.), appd. Pathologist at the Norton Hospital, Sheffield; Dr. Marion Brown (Pathol.); Prof. Desch (Metall.), appd. Superintendent of the Metallurgical Dept. of the National Physical Laboratory.

Honorary Degrees. *LL.D.*—H.R.H. Prince George, The Rt. Hon. Baron Irwin, Mr. Percival Sharp, General the Rt. Hon. Jan Christian Smuts. *Litt.D*.—His Grace the Lord Archbishop of York, The Rt. Rev. the Lord Bishop of Glasgow and Galloway. *D.St.*—Sir William Henry Bragg.

STUDENTS. Full-time: total, 749, including 88 graduates. Part-time: total, 2197, including 8 graduates.

DEGREES. Ph.D., 10; M.D., 2; M.A., 23; M.Sc., 21; LL.M., 4; M.Eng., 4; M.Met., 1; B.A., 58; B.Sc., 53; M.B., Ch.B., 7; LL.B., 9; B.Eng., 27; B.Sc.Tech., 4; B.Met., 8.

## UNIVERSITY OF WALES, CARDIFF

VISITOR AND PROTECTOR-H.M. THE KING.

CHANCELLOR-H.R.H. THE PRINCE OF WALES.

PRO-CHANCELLOR-The Hon. W. N. BRUCE, C.B., LL.D.

VICE-CHANCELLOR—for biennium ending Aug. 31, 1933, Principal C. A. EDWARDS, D.Sc., F.R.S., University College of Swansea, Swansea.

Warden of the Guild of Graduates—The Rev. Principal J. Morgan Jones, M.A.

CLERK OF THE GUILD OF GRADUATES-Prof. H. LEWIS, M.A.

TREASURER OF THE GUILD OF GRADUATES-F. E. REES. B.Sc.

DEAN OF DIVINITY-Rev. Prof. JOSEPH JONES, M.A., B.D.

REPRESENTATIVE IN PARLIAMENT—ERNEST EVANS, B.A., LL.B.

REGISTRAR—D. BRYNMOR ANTHONY, M.C., M.A., University Registry, Cathays Park, Cardiff.

SECRETARY TO THE COUNCIL-JENKIN JAMES, O.B.E., M.A.

#### CONSTITUENT COLLEGES

University College of Wales, Aberystwyth.

University College of North Wales, Bangor.

University College of S. Wales and Monmouthshire, Cardiff. University College of Swansea.

#### SCHOOL OF THE UNIVERSITY

THE WELSH NATIONAL SCHOOL OF MEDICINE.

## ASSOCIATED THEOLOGICAL COLLEGES

UNITED THEOLOGICAL COLLEGE, ABERYSTWYTH AND BALA. At Aberystwyth: Principal—Rev. H. Harris Hughes, B.A., B.D., Prof. of Christian Doctrine and Ethics of Religion. Other Profs.: Rev. J. Y. Evans, M.A., B.D., Church Hist.; W. Porter, M.A., D.Litt., Hebrew and O.T. Exegesis; Rev. W. R. Williams, M.A., New T. Greek; Rev. W. D. Davies, M.A., B.D., Philosophy and History of Religion. At Bala: Principal—Rev. David Phillips, M.A.; Rev. Prof. G. A. Edwards, M.A., Past. Theol.

Bangor, The Baptist and Congregational Jt. School of Univ. Theol. Studies. Rev. Principal J. T. Evans, M.A., B.D., Hebrew and O.T. Exegesis; Rev. Principal J.M. Jones, M.A. Ox., B.A. Lond., Ch. Hist.; Professors: Rev. J. Gwill Jenkins, M.A., B.Litt., N.T. Greek; Rev. J. E. Daniel, B.A. Ox., Christ. Doct., Phil. of Religion.

Brecon, The Memorial Coll. Principal—Rev. T. Lewis, M.A., B.D., Hebrew and O.T. Exegesis. Other Profs.: Rev. D. M. Edwards, M.A., D.D., Christian Doctrine and Philosophy of Religion; Rev. Jos. Jones, M.A., B.D., N.T. Greek, etc.; Rev. John Evans, B.A., Ch. Hist.

CARDIFF, The S. Wales Baptist Coll. Principal—Rev. T. Phillips, B.A., Hon. D.D., Christian Doctrine and Philos. of Religion. Profs.: Rev. T. W. Chance, M.A., B.D., Ch. Hist.; Rev. J. Griffiths, B.A., B.D., N.T. Greek and Exegesis.

CARMARTHEN, The Presb. Coll. Principal—Rev. J. Park Davies, M.A., B.D., Hebrew and Old T. Exegesis. Other Lectrs.: Rev. M. B. Owen, B.A., B.D., Christian Doctrine and Phil. of Religion; Rev. Emrys Jones, B.A., B.D., B.Litt., New T. Greek.

#### GENERAL INFORMATION

The Univ. was founded by Charter, 1893. As the result of an inquiry held by a Royal Commission in 1916—1918, a Supplemental Charter was granted to the Univ. in 1920, which introduced many important changes. For outline of changes, see Yearbook, 1929. The teaching for initial degrees is undertaken by the constituent and associated Colleges and by the Welsh National School of Medicine, and matriculation in the Univ. is open only to students of those institutions: in the case of an associated Theological College, only to students who are graduates of an approved University. The Univ. prescribes conditions under which it awards initial degrees to students of the Colleges and of the School of Med. and conducts the final examns. An Academic Advisory Committee deals with the conditions on which School Leaving certificates are accepted by the Univ. for matriculation, and as relieving a student from repeating in College work done in Secondary Schools, and with other matters lying in the borderland between School and Univ.

DEGREES. B.A., M.A., D.Litt.; B Sc., M.Sc., D.Sc.; B.Tech.; B.Mus., M.Mus., D.Mus.; LL.B., LL.M., LL.D.; M.B., B.Ch., M.D., M.Ch.; B.D., D.D.; Ph.D.

For a first degree 3 yrs. of study are required; in Technology 1 yr. in an approved technological institution. The degree in Med. is only open to a graduate in Arts or Science of some British or approved colonial or foreign Univ.; the period of qualification is 6 yrs., of which the last 3 may be spent in an approved School of Med. in the U.K. or in one of the Univs. of Paris, Berlin, Vienna, or the Johns Hopkins Univ. The degree of B.D. (3 yrs.' course) is post-graduate; study is pursued in one of the Associated Theol. Colls. (v. subra) or at the School of Theol. of the University Coll. of N. Wales, Bangor. Study for an Honours degree in Arts, Science, Music, or Law ordinarily covers 4 years. The M.A., M.Sc., and LL.M. may be awarded to graduates of other Univs. approved for this purpose who pursue a scheme of research for at least 2 yrs. in one of the constituent Colls. As regards Ph.D., see p. 18.

Diplomas in Educn. (post-grad. Diploma); Public Health (D.P.H.); Tuberculous Diseases (T.D.D.); in Agric. Sci. and in Forestry.

FEES: Matricn., £3; examns. qualifying for Bachelor degree, from £6:15s.; Master, £8; Ph.D., £12; higher Doctorates, £20.

Post-graduate Scholarships, etc. The Univ. has funds amounting to over \$4000 p.a. for the encouragement of research. In addition to 6 Fellowships (annual value \$200 each) tenable for 2 yrs., it awards 12 or more studentships on the nomination of the Colls. to students who after graduation engage in work preparatory to research for 2 yrs. Grants to assist research into Welsh language, institutions, etc., are made, preferably to members of the Univ., from the T. Ellis Memorial Fund (capital \$1574). A prize for research in Law from the Sir Samuel Evans Memorial Fund (capital \$1000).

PRIZES. The Roberts Welsh Reading Prize (bound books value £3:3s.); The Sir Samuel Evans Prize (c. £40) for the most proficient student in the Hons. examns. in Law; The Prince Llywelyn ap Gruffydd Memorial Prize (a bronze medal and bound books value £2:10s.) for the best M.A. dissertation on a sub-

ject relating to the hist. of Wales or the Welsh Marches; The Brough Prize in Logic and Psychology (about £40) for the best M.A. dissertation on a subject within the province of Logic or Psychol.; The John Maclean Prize (silver medal and bound books, value £2: 10s.) for the most proficient student in the degree examns. in Obstetr. and Gynæcol.; The Willie Seager Prizes in Medicine, Surgery, and Pathology and Bacteriology (a gold medal and books value £4), for the most proficient students in the degree examns. in Mod., Surg., and Pathol., and Bacteriol. respectively; The Hywel Dda Prize (£20) awarded to the person who has by work published within the preceding 5 calendar yrs. done most to advance the study of ancient Welsh law and custom, or thrown most light upon its origins and history; The Sir Ellis Griffith Memorial Prize (books value £5 and a money prize of £10), awarded to the person who has by work published within the preceding 3 calendar yrs. produced the best work dealing with Welsh Lit., the arts and crafts of Wales, or with artistic work produced by Welshmen.

PUBLICATIONS: Calendar (Oct.), 4s. Courses in Div. and in Mus., and Matricn. and Degree Regns., free. Matricn. Examn. Papers, 6d. Degree Papers: Arts, 6s., Science, 5s., Medicine, 1s., Theology, 9d. Bulletin of Board of Celtic Studies, 5s. Publns. of the Council of Music. The best account of the early history of the Univ. is in The University of Wales, by W. Cadwaladr Davies and W. Lewis Jones (F. E. Robinson & Co.). The introduction to the Report of the Royal Commission on Univ. Education in Wales, 1918, 1s., contains a valuable summary of the history of the University up to 1918.

## THE YEAR 1930-31

Benefactions. £600 from Mr. W. P. Thomas for a scholarship to be known as "The W. P. Thomas Scholarship."

RECENT DEVELOPMENTS. Diplomas in Agric. Sc. and in Forestry instituted. A dept. of German estabd. at the Univ. Coll. of Swansea. Courses in Geog. up to and including the Final stage instituted at the Univ. Coll. of Swansea. The status of the head of dept. of Agric. Chemistry at the Univ. Coll. of Wales, Aberystwyth, raised to that of prof. A charter of incorporation granted to the Welsh Nat. Sch. of Medicine. Amended regulations for the Dip. in Pub. Health approved. Scripture included as a subject for the Matricn. Examn. as from June 1932. St. John's College, Ystrad Meurig, and Coleg Clwyd, Rhyl, recognized as adult schools.

DEATHS. Sir Harry R. Reichel, formerly Principal of the Univ. Coll. of North Wales, 1884—1927, Vice-Chancellor of the University on six occasions. The Rt. Hon. Lord Stanley of Alderley, First President of the Welsh National School of Medicine.

RESIGNATIONS. Prof. E. A. Lewis (Econ. and Pol. Sci.), on appointment to Sir John Williams's Chair of Welsh Hist., Univ. Coll. of Wales, Aberystwyth. Prof. W. J. Pugh (Geol.), Univ. Coll. of Wales, Aberystwyth, on appointment to Manchester Univ.

Honorary Degrees. M.A.—Miss E. A. Fewings, Mr. T. G. James. D.Sc.—Sir Henry C. H. Carpenter, Mr. John Pringle, Sir Milsom Rees. D.Litt.—Prof. R. A. S. MacAlister. LL.D.—Mr. H R. Davies, Hon. James J. Davis, Mr. Daniel Radcliffe. D.D.—Rev. G. Howells, Prof. W. B. Stevenson.

STUDENTS. Full-time: total, 2868, graduates, 119; preparing for first degree, 2173. Other full-time students, 576; part-time, 308.

Degrees. B.A., 306; B.Sc., 166; B.Mus., 3; LL.B., 8; M.B., B.Ch., 7; B.D., 5; M.A., 24; M.Sc., 26; Ph.D., 18; D.Sc., 2.

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## UNIVERSITY COLLEGE OF WALES, ABERYSTWYTH

President of the Court of Governors and of the Council—David Davies, M.A., LL.D.

VICE-PRESIDENTS—The Rt. Hon. the EARL OF LISBURNE; D. C. ROBERTS, Esq., J.P.

PRINCIPAL—H. STUART JONES, M.A., D.Litt., F.B.A.

VICE-PRINCIPAL-Prof. EDWARD EDWARDS, M.A.

SECRETARY-E. B. HICKS, A.S.A.A.

Academic Secretary-G. J. Walker.

SENIOR LIBRARIAN—J. D. WILLIAMS, B.A.

JUNIOR LIBRARIAN-E. CEINWEN FELSTEAD.

## PROFESSORS, LECTURERS, ETC.

Agriculture, v. infra

Arabic, v. Hebrew

Botany

Newton, Mrs. L., Ph.D. Prof. Chater, E. H., B.Sc. Lond.

Lectr. & Demr. Carter, P. W., M.Sc. Asst. Lectr. Dobbs, C. G., B.Sc. Demr.

Celtic Philol. and Palæog.
Lewis, Timothy, B.A., M.A.
Manc. Reader.

Chemistry [Prof. James, T. C., M.A Camb., D.Sc. Senr. Lectrs.:

Bury, C. R., B.A., B.Sc. Ox. Hudleston, L. J., B.Sc. Lond.

Asst. Lectr. & Demr.: Williams, D. Matthew, Ph.D. Davies, D. G., B.Sc.,

Pt.-time Asst.

Classics
Mountford, J. F., M.A. Ox.,
D.Litt. Birm. (Latin) Prof.
Jenkins, E. D. T., M.A. Ox.
(Greek) Indept. Lectr.

Bensly, E., M.A. Camb.

(Med. and Renaissance Latin) Spl. Lectr. Baillie-Reynolds, P. K., M.A. Ox. (Ancient Hist.) Lectr.

Asst. Lectr. :

Duff, A. M., M.A., B.Litt.

Economics and Pol. Science, v. also Politics

Forrester, R. B., M.A. Ed., M.Com. Manc. Prof. George, Percy, B.A., B.Sc. Lectr. Morris, J., B.Sc. Asst. Lectr.

Education

Chapple, C. R., M.A. Lond. Prof. Roberts, Dorothy E., M.A. Lectr. Pinsent, A., M.A. Lond., B.Sc.

Lectr.

Lectrs. :

Jones, Gwenan, M.A., Ph.D. Minn. Green, G. H., M.A., B.Sc., Ph.D. Lond., B.Litt. Ox.

Rowlands, M. Gertrude.

Asst. Lectrs. : Bassett, F.

Edwards, Ifan ab O., M.A. Creed, Rachel M., M.A.

Jones, Dan R., M.A., A.R.C.A., A.M.C. Art Master.	Law, English
3 Instrs. in Physical Training and in Needlework.	Levi, T. A., M.A., B.C.L. Ox., LL.B. Lond. Prof. Spl. Lectr.:
English Language and Lit.	Evans, J. Victor, M.A.
Atkins, J. W. H., M.A. Camb. and	Asst. Lectrs.:
Lond. Rendel Prof.	Wing, R. A., B.A., LL.B.
Winstanley, Lilian, M.A. Manc.	Lewis, Vyrnwy J., B.A., LL.B.
Sr. Lectr.	Logic and Philosophy
Palmer, J. L., B.A.	Jones, W. Jenkyn, M.A. Camb.,
Earnshaw, J., M.A. Asst. Lectrs.	B.A. Lond. Prof.
French Lang. and Lit. and Romance Philol.	Davies, Dan, Ph.D. Glas., M.A. Asst. Lectr.
Barbier, J. L. A., L. ès L. Paris	Mathematics, Applied
Prof.	Schott, G. A., B.A. Camb., D.Sc.
Thomas, A. B., D. de l'U. Lyon,	Lond., F.R.S. Prof.
M.A. (Phonetics) Sr. Lectr.	Sutton, W. G. L., M.A. Ox. Lectr.
Phillips, Eva M., M.A. Lectr.	Lewis, Thos., M.Sc. Asst. Lectr.
Delemar, V. Pttime Asst.	Mathematics, Pure [Indpt. Lectr.
Geography and Anthropology, v.	Morton, V. C., M.A. Ox.
also Ocean.	Sutton, W. G. L., M.A. Lectr.
Forde, C. D., B.A., Ph.D. Lond.	Williams, D. R., M.A. Asst. Lectr.
Prof.	Music
Whitehouse, W. E., M.Sc. (Geog.) Special Lectr.	de Lloyd, David, Mus.D. Dub.,
Bowen, E. G., M.A. Asst. Lectr.	B.A., Mus.B. Prof. Clements, Charles, B.Mus.,
Fogg, W., M.A., Asst. Lectr.	F.R.C.O. Asst. Lectr.
Geology	7 Assts.
Lewis, H. P., M.A., Camb. Prof.	Oceanography
Challinor, J., M.A. Camb. Lectr.	Jenkins, J. Travis, D.Sc. Lond.,
Platt, J. I., M.Sc. Manc. Lectr.	Ph.D. Kiel, D.Sc. Hon. Lectr.
German	Palæography
Evans, David, M.A. Indpt. Lectr.	Lewis, Prof. E. A. Lectr.
Rees, Hermia, M.A. Asst. Lectr.	Philosophy, v. Logic
Schenk, L., Ph.D. Pttime Asst.	Physics
Hebrew and Arabic	Owen, Gwilym, M.A. Camb., M.Sc.
Prof.	Manc., D.Sc. Liv. Prof.
History, v. also Classics	Asst. Lectrs. & Demrs.:
Treharne, R. F., M.A., Ph.D.	Davies, R. M., M.Sc.
Prof. Herbert, Sydney, M.A.	Jones, I. C., M.Sc.
(Mod. Hist.) Lectr.	Stephens, E., M.Sc., Ph.D.
History, Colonial [Prof.	Politics, Internat.
Roberts, T. Stanley, M.A. Camb.	Webster, C. K., M.A. Camb., Litt.D. (to July 31)
History, Welsh	Wilson Prof.
Lewis, E. A., D.Sc. Lond., M.A.,	Asst. Lectrs. (Part-time):
D.Litt.	Vranek, J. F., Ph.D.
Sir John Williams Prof.	Vranek, Mrs. L. F., B.A.

Welsh [Prof. Parry-Williams, T. H., M.A. Wales, B.Litt. Ox., Ph.D. Freib. Jones, D. J. Gwenallt, M.A. Asst. Lectr. Welsh History, v. History, Welsh Welsh Literature Jones, T. Gwynn, M.A. Prof. Zoology, v. also Ocean.

Laurie, R. D., M.A. Ox. Prof. Watkin, E. E., Ph.D. Lectr. Rees, Florence G., Ph.D. Asst. Lectr.

Jenkins, J. R. W., M.Sc.
Spl. Lectr. in Entomology.

## Agriculture

Griffith, J. J., B.Sc. Prof. Phillips, R., M.Sc. Lectr.

Agric. Botany

Stapledon, R. G., M.B.E., M.A. Camb. Prof. Sampson, Kathleen, M.Sc. Lond.

Lectr.
Poulter, Annie A., B.Sc. Reading

Asst. Lectr.

Agric. Chemistry
Fagan, T. W., M.A. Camb., F.I.C.
Prof. and Advisory Chemist.
Davies, R. O., M.Sc.
Lectr.

Agr. Economics

Ashby, A. W., M.A. Ox.

Prof. and Adviser. Howell, J. Pryse, Dip. Agr.

Asst. Adviser.

Marketing Assts.:

Davies, J. Llefelys, M.Sc.

Williams, J. Glynne, M.S. Wisc., B.Sc.

Agric. Zoology, v. Zool. infra

Advisory Dairy Bacteriologist:

S. B. Thomas, M.Sc.

Advisory Entomologist:

J. R. W. Jenkins.

Advisory Mycologist:

D. W. Davies, B.Sc.

I Instr. and I Instructress in Dairying.

I Instr. in Agr. Book-keeping.

#### Plant Breeding Station

Stapledon, Prof. R. G., M.B.E., M.A. Director.

Investigators:

Jenkin, T. J., M.Sc.

Williams, R. D., M.Sc.

Jones, E. T., B.Sc.

Jones, Ll. K., B.Sc.

Davies, Wm., M.Sc.

Evans, Gwilym, B.Sc.

Beddows, A. R., B.Sc. Asst Milton, W. E. J., N.D.A.

Plant Physiologist:

H. G. Chippendale, M.Sc. Manc.

Grassland Adviser:

M. T. Thomas, B.Sc.

Assts.:

Beddows, A. R., B.Sc. Milton, W. E. J., N.D.A.

Jones, T. E., N.D.A.

8 County Organisers.

## University Extension

Morgan, Herbert, M.A. Ox., B.A. Director of Extra-mural Studies.

Residential Tutors:

Lewis, D. Hughes, B.A. Griffiths, T. Hughes, M.A.

23 Tutors.

#### GENERAL INFORMATION

Founded in 1872, the College was incorporated by Royal Charter in 1889, and is a constituent College of the Univ. of Wales. Its main building and Students' Hostels are on the sea front, facing Cardigan Bay.

LIBRARIES. College, 63,260 vols., including the collection of Sir John

Rhys. Access to the National Library of Wales, founded in 1907, 420,000 vols., rich in Welsh and other Celtic books and MSS. Museums: Archæol., Bot., Chem., Ethnog., Geog., Geol., Zool., Gallery of Crafts. The Chemistry Laboratories, erected in 1907, are the most complete in Wales. Agric. Expl. and Plant-breeding Stations and Training Farm.

FACULTIES. Arts, Science, Law, Music. *Departments*: Agriculture, Teaching (Elem. and Secondary), Art and Handicraft, Extra-mural, Phonetics. A special feature is the ample provision for instruction and research in Agriculture.

Courses in Arts, Science, Law, Music, for Degrees of the Univ. of Wales.

College Diploma courses: Agric., 3 yrs.; Dairying, 2 yrs.; Music, 2 yrs.; Geography, 1 yr.; Animal and Human Biology, 1 yr.; Art, 1 yr.; Handicraft, 1 yr.; Social Hygiene, 1 yr.

Courses in Science meet the requirements of the first year of Medical study and the examns, of the Pharmaceutical Society.

Post-graduate courses (1 yr.) for Teachers (Elem. and Secondary), and in Agric.

RESEARCH work is systematically carried on in Agric. Botany and Agric. Chem. (whole-time Research Botanist, Chemist, Entomologist, Mycologist, and Dairy Bacteriologist), Chem., Geol., Geog., Physics, Zool., English, Welsh, Welsh History, Philos., Maths., Economics, History.

FEES for tuition in Arts, £15 per session; Science, £20; Registration, £1; Research students, 6 to 10 gs.

SCHOLARSHIPS FOR GRADUATES. 5 for Research, value £25 to £150, open to students of the College. See also under Univ. Travelling Scholarships for visiting Continental institutions, total, £500. Grant varies according to expenses incurred. Research Studentship. £200 in Dept. of International Politics. Sir John Williams Research Studentships for Welsh Studies.

RESIDENCE. Board and lodging at Women Hostels: 50 to 62 gs. per session. Accommodation in Hostels for 300 women.

MEDICAL ATTENTION is provided for by a capitation fee of ros., payable by all students each session.

UNIVERSITY EXTENSION. Local lectures and short courses in Agric. subjects; Travelling Dairy School; Tutorial Classes in Econ., Lit., Hist., Welsh, Psychology, etc.; Summer School annually in Aug. The Advisory Staff of the Dept. of Agric. give advice to farmers and fruit growers.

Affiliation. The Coll. is recognized by Ox. and Camb., and by Edin. and N.U.I., by the R.C.P. and S. Eng. and the R.C.S.I., the F.P. & S. Glas., the R.C.P.I. and the R.C.S.I., the Inst. Chem., and the Surveyors' Instn.

Publications: Prospectus (Oct.); Reports (Jan.), 1s. 6d.; Aberystwyth Studies; Students' Magazine, The Dragon; Inaugural Lectures.

## THE YEAR 1930-31

Benefactions. For the Plant Breeding Station—Imperial Chemical Industries, Ltd., £300, Sir Ernest Debenham, £100, the Dinam Charity, £100, Mr. D. Owen Evans, £100, the Earl of Lisburne, £100, Mr. S. M. Bligh, £50, Mr. J. P. Morgan, £50, other gifts, £10; Trustees of the Cynddelw Fund, Cynddelw Welsh Scholarship, £831; Marshall Memorial Fund Committee, Marshall Memorial Exhibition, £209; Mr. J. Davies Bryan, Music Scholarship, £25;

the Pilgrim Trust, Students' Loan Fund, £200; Miss Gwendoline E. Davies, £55; other gifts, £60.

NEW DEPARTMENT. A new dept. of Welsh Hist. established; the Independent Head of the Agric. Chem. Dept. raised to status of Professor.

Public Lectures were delivered by Sir Henry Hadow, Sir Charles Holmes, Prof. J. B. S. Haldane, Prof. C. K. Webster, Prof. E. Bensly, and others.

Travelling Scholarship Fund. About 60 awards, amounting to upwards of £500, were made to students and Members of Staff to enable them to visit Continental countries during the Easter and Summer Vacations.

INTERCHANGE OF TEACHERS. The following members of the Staff lectured at other Colls. of the Univ.—Prof. T. Stanley Roberts (Hist.); Prof. L. Newton (Bot.); A. Pinsent (Edn.); S. Herbert (Hist.); A. B. Thomas (French).

RESIGNATIONS. Prof. W. J. Pugh (Geol.), appointed Prof. of Geol., Univ. of Manchester; Prof. E. A. Lewis (Econ.), appointed Prof. of Welsh Hist.; John Hughes (Educn.), appointed Prof. of Educn., Rhodes Univ. Coll., Grahamstown; C. Braithwaite (Econs.), appointed Asst. Lectr., Univ. of Birmingham; D. J. Ll. Davies (Law), appointed Asst. Lectr., London Sch. of Economics; C. L. Shelley (German), appointed Asst. Lectr., Univ. of Manchester; C. Davies (Geog.); F. H. Dowler (Classics); R. L. Devos (French); G. M. Jones (Physics); M. G. Ashton (Botany).

STUDENTS. Full-time, 735; graduates, 38; preparing for first degree, 556; other full-time, 141. Part-time and occasional, 22. Pre-matriculation, 39. Extra-mural, 541.

DEGREES OBTAINED. B.A., 87; B.Sc., 48; LL.B., 15; M.A., 1; Ph.D., 4.

# UNIVERSITY COLLEGE OF NORTH WALES, BANGOR

PRESIDENT-H. N. GLADSTONE.

CHAIRMAN OF THE COUNCIL—H. R. DAVIES, M.A., LL.D., J.P.

PRINCIPAL—D. EMRYS EVANS, M.A., B.Litt.

SECRETARY AND REGISTRAR—W. P. WHELDON, D.S.O., M.A., LL.B. LIBRARIAN—T. RICHARDS, M.A., D.Litt.

WARDEN OF THE WOMEN STUDENTS-MURIEL ORLIDGE DAVIS.

## PROFESSORS, LECTURERS, ETC.

Agriculture

White, R. G., M.Sc. Leeds Prof. Roberts, E. Jones, M.A., M.Sc.

Montgomerie, R. F., B.Sc., Ph.D., M.R.C.V.S.

Vet. Advisory Officer. Rowlands, W. T., M.R.C.V.S. Asst. Vet. Adviser. Ashby, A. W., M.A.

Spl. Lectr. in Ag. Econ. Hickson, Miss P.

Dairy Bacteriologist. Currie, J. F.

Supervisor of Seed Po-

tato Scheme. Lectrs. in Bldg. Constn., Bookkeeping, Vet. Hygiene.

County Staffs: 5 Organizers; Instructors in Cheesemaking, Dairying, Horticulture and	Jolliffe, Miss M. F., M.A. Asst. Lectr. Education
Poultry-keeping.	Archer, R. L., M.A. Ox. Prof.
Agric. Botany [Indpt. Lectr.	Paterson, Alice, M.A. Edin., Ph.D.
Roberts, R. Alun, Ph.D. Whitehead, T., M.Sc., Ph.D.,	Jena Lectr. Thomas, Miss M. Lectr.
Whitehead, T., M.Sc., Ph.D., A.R.C.S.	Hamilton, E. R., M.A. Camb.,
Adviser in Plant Pathology.	B.Sc. Lond. Lectr.
Agric. Chemistry [Prof.	Williams, Ivor, B.Sc. Asst. Lectr.
Robinson, G. W., M.A. Camb.	Instructors in Drill, Handwork,
McLean, W., B.A., B.Sc.,	and Rural Sc.
A.R.C.S.I., A.I.C. Lectr.	English Lang. and Lit.
Williams, Rice, M.Sc. Asst. Lectr.	Wright, H. G., M.A. Vict. Prof.
3 Res. Assts.	King, R. W., M.A. Lond. Lectr.
Agric. Entomology [Adviser.	Davies, C., M.A. Wales Asst. Lectr.
Davies, W. Maldwyn, Ph.D. Lond.	Forestry
Applied Electricity and Hydro-	Thomson, T., M.Sc. Indpt. Lectr.
Electric Engineering	French and Rom. Philol. [Prof.
Williams, W. E., B.Sc.	Fynes-Clinton, O. H., M.A. Ox.
Indpt. Lectr. Marriott, E. N., M.Eng. Shef.	Cariou, Mlle. H., L. ès L. Lectrice.
Asst. Lectr.	Briggs, E. R., B.A. Camb.
Botany	Asst. Lectr.
Thoday, D., M.A. Camb. Prof.	German and Teut. Philol.
Davey, A. Jane, M.Sc. Lond.	Purdie, Edna, M.A. Liv., D.Lit.
Lectr.	Indpt. Lectr.
Woodhead, N., M.Sc. Manc.	Wessely, Frln. Dr. Emma Lektor.
Asst. Lectr.  Chemistry [Prof.	History, v. also Theol.
Simonsen, J. L., D.Sc. Manc., F.I.C.	Lloyd, J. E., M.A., D.Litt. Ox.
Bradfield, A. E., Ph.D. Lectr.	Emer. Prof.
Soper, F. G., D.Sc., A.I.C.	Dodd, A. H., M.A. Ox. Prof.
Lectr. in Physical C.	Thomas, J. Alun, M.A. Wales, Ph.D. Lond. Lectr.
Asst. Lectr. & Demr.:	Pierce, T. J., M.A. Liv.
Cahn, R. S., M.A. Camb., Ph.D.	(Mediæval H.) Asst. Lectr.
Frankf.	Logic and Philosophy, v. also
Classics, v. also Theol. Hudson-Williams, T., M.A., D.Lit.	Theol.
Lond. (Greek) Prof.	Gibson, J., M.A. Camb. Prof.
Thomson, H. J., M.A., D.Litt.	Lewis, Miss G. A., M.A. Lectr.
St. And. (Latin) Prof.	Stout, A. K., M.A. Ox. Lectr.
Lees, Miss M. E., M.A. Vict.	Mathematics
(Latin) Lectr.	Berwick, W. E. H., M.A., Sc.D.
Browne, R. A., M.A. Wales, Ph.D.	Camb. Prof.
Camb. Asst. Lectr.	Phillips, E. G., M.A. Camb., M.Sc.
Economics  Rees I Morgan M A	Manc. Lectr.
Rees, J. Morgan, M.A. Indpt. Lectr.	Shepherd, W. M., M.Sc. Lond.
mapo. Lecti.	Asst. Lectr.

Music
Davies, E. T., F.R.C.O. Director.
Hamilton, E. R., M.A., B.Sc.
Spl. Lectr.
5 Executants and Teachers.
Philosophy, v. Logic and Theol.
Physics
Owen, E. A., M.A. Camb., D.Sc. Lond., F.Inst.P. Prof.
Mainstone, P. A., M.Sc. Bris.
Lectr.
Jones, H. Irvon, M.Sc. Lectr.
Asst. Lectr. & Demr:
Thomas, Elfed, Ph.D.
Semitic Languages
Robertson, E., M.A., D.D., D.Litt. St. And. Prof.
Evans, Rev. Principal J. T., M.A., B.D. Spl. Lectr.
Theology, v. also Semitic Langs.
Spl. Lectrs.:
- <u>r</u>

Jenkins, Rev. Prof. J. Gwili, M.A., B.Litt. Richards, T., M.A., D.Litt.

Welsh

Williams, Ifor, M.A.
Parry, R. W., M.A.
Parry, T., M.A.
Prof.
Lectr.
Asst. Lectr.

Welsh History

Jenkins, R. T., M.A., LL.B. Camb., B.A. Indpt. Lectr.

Zoology

Brambell, F. W. Rogers, B.A., Ph.D. Dub., D.Sc. Lond. Prof.

Jackson, L. H., B.Sc. Lond. Asst. Lectr.

## University Extension

Whole-time Lectrs.: Jones, E. J., M.A.; Rogers, E., M.A.; Parry, O., M.A.; Jones, A. E., B.A. Half-time: Parry, R. W., M.A.; Pierce, T. Jones, M.A. Many other members of the Staff give single courses or combine in giving a series.

## GENERAL INFORMATION

Jones, Rev. Principal J. M., M.A.

Simon, Rev. G., M.A. (Philos.

Daniel, J. E., M.A. (Philos. of

(Church Hist.).

Theism).

Religion).

This College, constituted by Royal Charter in 1885, was made a constituent College of the University in 1893.

LIBRARIES. General, 100,000 vols. (Theology a strong feature). Welsh, 50,000, including the largest and best-equipped collection of Welsh periodicals in existence. Museums include: (a) a Zoological section comprising a large collection of vertebrate and invertebrate animals and a collection of human bones representative of the different races of mankind; (b) a collection of Welsh domestic and agricultural bygones together with Roman finds from Segontium and Capel Curig. FARM, 675 acres, chiefly sheep pasturage. Dairy.

Special facilities are offered for research in Welsh Lang, and Lit., Political, Social, Econ., and Religious Hist. of Wales, and allied subjects.

Courses. B.A. degree courses include among others a "special scheme of study based on the idea of citizenship." There are courses in Theology for B.D. degree, and full courses for the B.Sc. in Agric. and Rural Economy, Forestry, Applied Electricity and Hydro-Electrics, as well as in Pure Sc. College Diploma courses in Agric. and in Estate Management (3 yrs.), and in Forestry and Elec. Engineering (2 years). The Agric. course is recognized by the Surveyors' Instn. as qualifying for Students' Proficiency examn. Courses for College Certificates (2) in Music. Other courses: First year of Med. study;

r yr. post-graduate course for Teachers (Elem. and Secondary); for Kindergarten Certif.—Elem. 1 yr., Higher 2 yrs. and 1 term.

FEES. Registration, I g. per session. Tuition, per session: Arts, £15; Kindergarten, £20; Science, £20; Medicine, 1st year (including lab.), £22; Post-graduate courses, non-lab., 6 gs.; with lab., 10 gs.; Agric., etc., diploma course, winter session, £15: 15s. (2 terms); Farm Practical Instruction, £5 (or 2 gs. a term). College societies (compulsory), £1: 12s.

SCHOLARSHIPS, ETC., FOR GRADUATES. Several College awards ranging in value from £25 to £100, open to students of the College. Loan fund (£150) for helping poor students to complete courses; also University Studentships of £100 and Fellowships of £250. See under Univ.

RESIDENCE. Hostels for 35 men (£47 p.a.) and 180 women (£49-£61). Total cost of living in lodgings and tuition in Bangor, from £70 to £80 per session.

UNIVERSITY EXTENSION, ETC. Local lectures in Literature, Econ., and Agric.; small lending libraries; Tutorial and Preparatory Classes in six counties. The Advisers in Agriculture conduct experiments and give expert advice to farmers and others.

Publications. Calendar (Sept.), 2s. 6d.; Students' Handbook, is.; College Magazine, one issue per term, is.; Prospectus free.

## THE YEAR 1930-31

Benefactions. An anonymous donor gave the sum of £500 for adapting and re-equipping the Zoology block in the Memorial buildings to cope with the increased number of students. The Cadwaladr Davies Loan Fund for students received during the session gifts of £100 from the executors of the late Dr. Mary Davies, and of £50 from Mrs. Gwyneddon Davies of Llanwnda. A sum of £500, collected by the relatives and friends of the late Lady Verney, for the establishment of a Verney Memorial Scholarship, open to women students at entrance. A sum of £178, from friends of the late Prof. Orton, for the endowment of the "Kennedy Orton Lecture," to be delivered biennially, on bird life or some other aspect of the countryside. The Library received a number of valuable gifts, including 3000 books and MSS. under the will of the late Mr. Richard Hughes of Llanerchymedd, and 200 vols. from the library of the late Dr. Owen Davies of Caernarvon.

DEVELOPMENTS. Increased grants.—The increase in grants provided by the Treasury was applied to the following objects: the establishment of an increments scheme for the salaries of Lectrs. and Asst. Lectrs.; improvement of the salaries of Independent Lectrs. and of the Librarian; increase in annual grant to Library; further assistance in depts. of French and Physics.

UNIVERSITY EXTENSION. 24 Tutorial Classes, with 476 students (roo women), chiefly in Lit., Econ., Soc., and Pol. studies, and Music; preparatory classes (ro), with r75 students (76 women), in Lit., Music, and Physiol.; 3 extension lecture courses with r48 students (55 women), in Music, Lit., and Hist. The Ballard Mathews lectures were delivered by Mr. Desmond MacCarthy. 4 Art lectures were given by Mr. Stanley Casson, M.A., Oxford. The special lectr. in the Fac. of Theol. for the session was Prof. W. B. Stevenson of Glasgow. The 7th Vacation School in Theol. was held in March, the inaugural address being delivered by the late Rector Emeritus Sir Harry Reichel. Other lecturers at the school included the Rev. Canon Battersby Harford,

Ripon; Dr. Sydney Cave, Cambridge; Prof. McKenzie, Nottingham; the Rev. Prof. W. Manson, Edinburgh; and Dr. Macaulay, Glasgow.

DEATHS. Rector Emeritus Sir Harry Rudolf Reichel, Principal of the College from its foundation until 1927.

RESIGNATION. Mr. P. A. Sloan, B.A. (Econ.), on appt. as Teacher of English at the Moscow Tech. Coll.

STUDENTS. Full-time: total, 551, including 93 graduates. Part-time: total, 27.

DEGREES. B.A., 62; M.A., 8; B.D., 2; B.Sc., 27; M.Sc., 3; Ph.D., 5.

# UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE, CARDIFF

PRESIDENT—Maj.-Gen. THE LORD TREOWEN, C.B., C.M.G.

Treasurer—Daniel Radcliffe, LL.D., J.P.

PRINCIPAL—J. F. REES, M.A. Ox., M.Com. Birm.

REGISTRAR-D. J. A. Brown.

LIBRARIAN—S. O. MOFFET, M.A. Manc.

## PROFESSORS, LECTURERS, ETC.

Agriculture

Advisory and Research Staff: Rees, J., B.A., M.Sc. (A. Botany). Thompson, H. W., M.Sc. Leeds (A. Zool.).

Bisset, N., M.R.C.V.S. (Scot.) (Vet. Sc.).

Anatomy

West, C. McL., M.C., M.B., B.Ch., Sc.D. Dub. Prof. Strong, E. C. N., L.D.S., M.R.C.S., L.R.C.P. Lectr. & Demr. Burlend, T. H., M.A. Camb., B.Sc.

Yoffey, J. M., M.D., M.Sc. Lectr.
Demrs.:

Lond. (Histol. & Embryol.).

Cooke, Robert V., M.B., Ch.B. Brist., F.R.C.S.

Rees, W. Esmond, M.D.

Rogers, Lambert C., M.Sc., F.R.C.S. Ed., F.A.C.S.

Parry, Rupert, M.B., B.S. Lond. McSweeney, Evelyn H., B.Sc. N.U.I. (Histol. & Embryol.).

Archæology [Lectr. Nash-Williams, V. E., M. A. (Keeper of Dept. of A. in Nat. Museum)

Architecture

Purchon, W. S., M.A. Lond., A.R.I.B.A. Lectr.

Botany

McLean, R. C., M.A. Camb., D.Sc. Lond., F.L.S. Prof.

Asst. Lectrs. & Demrs.:

Dickinson, S., D.I.C., M.Sc.

Martin, Mary S., B.Sc. Edin. Hyde, H. A., M.A. Camb. (Keeper of Bot. in Nat. Museum)

(Econ. Bot.) Hon. Lectr. Chemistry, v. also Physiol.

Jones, W. J., D.Sc. Manc., M.Sc., F.I.C., F.Inst.P. Prof.

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Sibley, G. V. Oppenheimer, Mary. Williams, D. E. Parry, B.Sc., M.Mus. Jackson, Annie, B.Sc. Lond.  Engineering Thomas, W. Norman, M.A., D.Phil.  Missippy of Wates Rees, Wm., D.Sc. Lond., M.A.  Industrial Relations Marquand, H. A., M.A. Prof.  Law Davies, E., B.C.L., M.A. Ox. Lectr Evans, C., B.C.L., M.A. Ox.	B.A.	B.Litt Ox. Lectr. Williams, David, M.A. Asst. Lectr.
M.Mus. Jackson, Annie, B.Sc. Lond.  Engineering Thomas, W. Norman, M.A., D.Phil.  The mas, W. Norman, M.A., D.Phil.  The mass with the mass of the mas	Sibley, G. V. Oppenheimer, Mary.	Rees, Wm., D.Sc. Lond., M.A.
Engineering Davies, E., B.C.L., M.A. Ox. Lectr Thomas, W. Norman, M.A., D.Phil. Evans, C., B.C.L., M.A. Ox.	Williams, D. E. Parry, B.Sc., M.Mus.	Industrial Relations
ASSI. Lectr	Engineering Thomas, W. Norman, M.A., D.Phil.	Davies, E., B.C.L., M.A. Ox. Lectr. Evans, C., B.C.L., M.A. Ox.
	, 5, 1 1101.	Asst. Lectr.

Mathematics

Livens, G. H., M.A. Camb. Prof. Lectrs.:

Taylor, D. G., M.A. Camb. and Glas., D.Sc. Glas.

Hayden, H. A., M.Sc. Lond., B.Sc. Pope, A. H., M.Sc. Lond.

Asst. Lectr.

Metallurgy

Read, A. A., D.Met. Sheff., F.I.C., F.C.S. Prof.
Jones, W. R. D., M.Sc. Lectr.
Jones, B., M.Sc., A.I.C. Asst. Lectr.
Mining [Lectr.
Price, S. W., A.R.S.M., M.I.M.E.
Chubb, C. S., B.Sc. Asst. Lectr.
Music

Evans, D., Mus.D. Ox. Prof. Lloyd, J. Morgan, Mus.Doc. Dub. Lectr.

9 Teachers.

Philosophy
Scott, J. W., M.A., D.Phil. Glas.
Thorburn, J. M., M.A., B.Sc. Edin.,
B.A. Lond. Lectr.
Physics [Prof.
Dunbar, R. T., M.A., Ph.D. Edin.

Lectrs.: Young, C. L., B.Sc.

Harker, G. F. H., M.A. Camb. Crackston, J. E., M.Sc. Camb., M.Sc. Liv.

Wood, R. G., M.Sc. Manc.

Asst. Lectr.

Physiology

Brown, T. Graham, D.Sc., M.D. Edin., M.R.C.P.I., F.R.S.

Prof.
Pryde, J., B.Sc. St. And., M.Sc.
(Lectr. in Physiol. Chem.)

Asst. Lectr. & Demr.

risst. Beeti. & Beili.

ASSOCIATED INSTITUTIONS

TECHNICAL COLLEGE, CARDIFF. Principal, C. Coles, B.Sc.

South Wales and Monmouthshire School of Mines, Treforest. Principal, George Knox, F.G.S.

Both Institutions join with the University College in granting Diplomas, v. infra: College Diplomas.

Hemingway, A., M.Sc., M.B., Ch.B. Leeds Lectr. (Expl. P.). Shaxby, J. H., D.Sc. Lond., F.Inst.P.

Lectr. (Special Sense P.). Phelps, H. J., B.A., B.Sc. Ox. Asst. Lectr. & Demr.

Semilic Languages

Robinson, T. H., M.A. Camb., D.D. Lond., Hon. D.D. Aberd. Prof.

Rowley, H. H., B.A. Brist., B.D. Lond., B.Litt. Ox.

Asst. Lectr.

Welsh

Gruffydd, W. J., M.A. Ox. Prof. Williams, G. J., M.A. Lectr. Morgan, T. J., M.A. Asst. Lectr.

Zoology & Comparative Anatomy Tattersall, W. M., D.Sc. Manc. Prof. Lectrs.:

Lloyd, J. H., M.Sc. Birm., F.Z.S. Sheppard, Edith M., M.Sc., F.Z.S. Thompson, H. W., M.Sc. Leeds, Adviser in Agr. Zool. (Entomol.).

Training College of Domestic Arts for South Wales and Monmouthshire

Principal:

Davies, E. M., B.Sc. Lond., Hous. and Sec. Sci.

7 Teachers.

## University Extension

Tutors, 32 (including a few members of the College Staff). Joint Secy.—D. J. A. Brown, Regr.

### GENERAL INFORMATION

Opened in 1883 and incorporated by Royal Charter in 1884, this is now one of the constituent Colleges of the Univ. For early history, see Yearbook, 1929.

His Majesty the King in Council has granted (a) a Supplemental Charter to the College bearing date, January 21, 1931, and (b) a Charter of Incorporation to the Welsh National School of Medicine bearing date, February 5, 1931. Medical students will, as from July 1, 1931, pursue their courses of study qualifying for degrees and Diplomas (a) in the Univ. Coll.: Physics, Chemistry, Bot., Zool., Anat., and Physiol., and (b) in the Welsh Nat. School of Medicine: Med., Surg., Obstet. and Gynacol., Pathol. and Bacteriol., Pharmacol. and Mat. Med., Public Health and Preventive Med., and Tuberculosis.

LIBRARY: Drapers' Company's, 70,000 vols. Museums: Anat., Zool., Agric. The National Museum of Wales (Art, Archæol., Zool., Geol., Bot.) is located in an adjoining building. Laboratories: Physical Research. with liquid-air plant, etc.; Engineering (including roo-ton testing machine); and usual Science and Medical teaching and Research labs.

FACULTIES. Arts, Science. *Departments*: Music, Applied Science and Technology, Teaching (Elem. and Secondary); Training College of Domestic Arts; Advisory and Research Dept. in Agric. Law.

College Diplomas. Engin., Metalliferous Mining, Metallurgy; Lang., Lit., and Hist. of Wales; Econ. and allied subjects; Music; Social Study and Training. In the Applied Science subjects the qualifying scheme of study covers 3 years; in the other subjects, 2 yrs. A Diploma in Biology is awarded after a one-year's course. A Joint Diploma in Coal Mining is granted by the Coll. and the S.W. and Monmouthshire School of Mines, 4 yrs.' residence being required. After a 4 yrs.' course students who desire to specialize in certain subjects can take a post-diploma course. A Joint Diploma in Mech. Engin., Marine Engin., or Industr. Chem. is granted by this Coll. and the Cardiff Tech. Coll. after a 3 yrs.' course.

Scholarships (Prospectus obtainable from the Registrar). One of £60 is offered for research by a woman in any faculty, one of £50 (which may be increased by a bonus) for Science research. See also under Univ.

FEES. Annual Composition for tuition—Arts, £15; Science, £20; Music, £15; Applied Science, £20 (Non-associated Counties, £30); Medical (first 3 yrs.), £25 to £35; Research, 6 to 10 gs.; Domestic Arts, £40-£71; Registration, 1 g. p.a.

RESIDENCE. 4 Hostels for women. Sessional Fees, £65 to £75. Board and lodging in the City can be obtained at about £2 per week.

Physical Welfare of Students. There is an Asst. Lectr. in Physical Training who also acts as College Adviser in Physical Training and Games.

Publications. Calendar (Feb.), 2s.; Students' Handbook; Cap and Gown. Information regarding Courses and Careers open to Students of Science.

## THE YEAR 1930-31

BENEFACTIONS. £3762:10:3 for Appeal Fund, which has now reached £169,418. £333:11:6 for Scholarship and Prizes. £1006:16:9 for General Purposes. £156 for Selby Lecture Fund.

RESIGNATIONS. Dr. E. P. Perman (Chem.), M. G. Vedier (French).

STUDENTS. Full-time, 1083, including 189 graduates. Part-time, 228, including 33 graduates.

DEGREES OBTAINED. B.A., 111; B.Sc., 61; M.A., 5; M.Sc., 4; Ph.D., 4; D.Sc., 1; M.B., B.Ch., 7; Mus.Bac., 3; B.D., 2.

# THE WELSH NATIONAL SCHOOL OF MEDICINE, CARDIFF

President-.... Provost-Prof. A. W. Sheen, C.B.E., M.S., F.R.C.S. HON. TREASURER—Sir WILLIAM JAMES THOMAS, LL.D. SECRETARY—S. G. EDWARDS.

## PROFESSORS, LECTURERS, ETC.

(For subjects of first 2 yrs.—Anat., etc., v. Univ. Coll., Cardiff)

Hygiene and Public Health Collis, E. L., M.A., D.M. Ox., M.R.C.P., M.R.C.S.

Mansel Talbot Prof. of Preventive Med.

Lectrs.:

Williams, E. Colston, M.D. Lond., D.P.H. Camb., F.R.C.S.E.

Picken, R. M. F., M.B., Ch.B., B.Sc. Glas., D.P.H. Camb.

Morgan, W. Parry, M.A., M.D. Camb., B.Sc. Lond.

Sugden, J. H., M.Sc. Manc., F.I.C. Buist, J. J., M.B. Lond. Instr. (Vaccination).

Materia Medica and Pharmacology

Stevens, W. Mitchell, M.D. Lond., F.R.C.P. Lond. Lectr. Beatty, J., M.A., M.D. Dub., M.R.C.P. Lond., D.P.H.

Asst. Lectr.

Medicine (Med. Unit)

Kennedy, A. Mills, M.D., Ch.B. Glas., M.R.C.P.

Prof. and Director. Davies, Ivor J., M.D., B.S. Lond., F.R.C.P. Senr. Asst. Junr. Assts.: Ström-Olsen, M.B., B.Ch.

Phillips, W., M.B., B.Ch.

Ingham, J., A.I.C. Bio-Chemist. McCowan, P. K., M.D. Edin., M.R.C.P. Lond., D.P.M. Eng.

Lectr. (Mental Dis.).

Buist, J. J., M.B. Lond. Lectr. (Forensic M. and

Toxicology). McGarrity, J., M.D., B.S., Ch.B.,

D.P.H., Supt. of Instn. in Fevers.

Obstetrics and Gynæcology

Strachan, G. I., M.D., Ch.B. Glas., F.R.C.P. Lond., F.R.C.S. Eng. and Edin. Acting Prof. Assts.:

Collins, B. K. Tenison, M.A., M.D., B.Ch. Camb., M.R.C.S., L.R.C.P., F.R.C.S.Ed.

Webster, Helena J., M.B., B.Ch., M.R.C.S., L.R.C.P., D.P.H.

Pathology and Bacteriology Duguid, J. B., M.D. Aberd.

Actg. Prof.

Morgan, W. Parry, M.A., M.D. Camb., B.Sc. Lond.

Lectr. (Bact.). Gough, Jethro, M.D., M.R.C.S., L.R.C.P.

Asst. Lectr. (Path.). Harrison, C. V., B.Sc., M.B., B.Ch. Demr.

Medicine (Out-Patients)

Ophthalmology

Howell, Alfred, M.D., M.R.C.P.

Davies, Ivor J., M.D., F.R.C.P. Évans, Herbert T., M.D., M.R.C.P.

Cresswell, F. P. S., M.B., B.S.,

Surgery (Surg. Unit) Sheen, A. W., C.B.E., M.B., M.S.

F.R.C.S. Edin.

Lond., F.R.C.S. Eng.

Rogers, L. C., M.Sc., F.A.C.S.,

Prof. and Director.

Senr. Asst.

Cooke, Robert V., M.B., Ch.M. B.Sc., F.R.C.S. Lectr. Brist., F.R.C.S. Junr. Asst. Davies, D. Leighton, M.D., M.S., Parker, A. O., M.D., C.M. Manc. F.R.C.S. Lectr. (Orthopædics). Thomas, J. W. Tudor, B.Sc., M.B., Tuberculosis B.S. Lond., M.D., B.Ch., Cummins, S. Lyle, C.B., C.M.G., F.R.C.S. M.D., LL.D. Oto-Rhino-Laryngology David Davies Prof. of Owen, R. D., B.Sc., F.R.C.S. Tuberculosis. Edin. Lectr. Powell, D. A., M.D., B.S. Lond., Prichard, A. A., M.D., B.Ch. M.R.C.S., L.R.C.P. Hon. Lectr. Pathology, Clinical Recognized Teachers: Schölberg, H. A., M.B. Lond., Brownlee, A., M.D., F.R.C.S.E., L.R.C.P., L.D.S., D.P.H. D.P.H. Camb. William, M.R.C.S., Davies, Physio-Therapy L.R.C.P. Evans, T. Garfield, M.D., B.S., Gilchrist, James C., M.D., Ch.B. D.M.R.E. Lectr. Hiley, R. Melville, M.R.C.S., Radiology L.R.C.P. Rhys, Owen L., M.D., B.Ch. Lectr. Johnson, A. C., M.A., M.B., B.Ch. Tytler, W. H., M.B., B.A. Surgery (In-Patients) Martin, William, M.A., M.B., C.M., B.Sc. Recognized Clinical Teachers and Wade, J. O. D., O.B.E., M.S., Part-time Lecturers F.R.C.S. Harries, D. J., M.D., B.S., D.Sc., Anæsthetics [Lectr. Greaves, H. Gordon, M.B., B.Ch. F.R.C.S. Surgery (Out-Patients) Dental Surgery Hammond, T. E., F.R.C.S. Kittow, W., L.D.S., R.C.S. Eng. Haycraft, J. B., M.B., Ch.B., Spiridion, C., L.D.S. McFarlane, J., M.R.C.S., L.R.C.P., F.R.C.S. Ioan-Jones, D., M.B., B.Ch., L.D.S. F.R.C.S. Dermatology Beatty, J., M.A., M.D., M.R.C.P., Surgery, Clinical (at City Lodge D.P.H. Lectr. Hospital) Harries, D. J., M.D., B.S., D.Sc., Diseases of Children [Lectr. F.R.C.S. Howell, Alfred, M.D., M.R.C.P. Medicine (In-Patients) Venereal Diseases Stevens, W. Mitchell, M.D., Rhys, Owen L., M.D., B.Ch. Lectr. F.R.C.P. Watterson, Miss D., M.B., B.Ch. Lewis, Cyril, M.D. Lectr.

#### GENERAL INFORMATION

The Welsh National School of Medicine originated in the institution of Depts. in Anat. and Physiol. at the Univ. Coll. of S. Wales and Monmouthshire, Cardiff, in 1893. The Dept. of Mat. Med. and Pharmacol. was instituted in 1898, and the Chair of Pathol. and Bacteriol. in 1910. The David Davies Chair of Tuberculosis and the Mansel Talbot Chair of Prev. Med. were endowed in 1921, and in that year Medical and Surgical Units and a Dept. of Obstet. and Gynæcol. were instituted. On Feb. 5, 1931, a Charter of Incorporation was granted to the School by H.M. the King in Council.

The School is recognized by the Univ. of London, and by the Conjoint Board of Examns, for the Royal Coll, of Physicians and the Royal Coll, of Surgeons, and candidates can pursue their studies for the degrees of M.B., B.S. (London), and for the Diplomas L.R.C.P., M.R.C.S. at this School.

Degrees and Diplomas. The School provides courses of study for the degrees of M.B., B.Ch., and for the Tuberculous Dis. Dipl. and the Dipl. in Public Health of the Univ. of Wales.

FEES. Registration Fee, £1: is.; Annual Composition Fee, £25 to £35; Hospital Practice (4th, 5th, and 6th years), £12:12s.; M.B., B.Ch., £23:5s. approx.; M.D., £20; M.Ch., £20.

Publications. Prospectus and Regulations (free).

PRIZES AND MEDALS. "Dr. Price Prize," £50; "Alfred Sheen Prize," £5; "David Hepburn Medal," "Alfred Hughes Prize," each tenable at the University College of South Wales and Monmouthshire; "John Maclean Prize" in Obstetrics and Gynæcology (Silver Medal and £2:10s.); "Willie Seager Prize" in Medicine, in Surgery, in Pathology and Bacteriology (Gold Medal and  $f_4$  each).

Post-graduate Scholarships. "Mrs. John Nixon" for Research in Med. and Med. Pathol., £150 for 1 yr. "Lord Merthyr" for res. in Cancer, £200 for I yr. For Cecil Prosser for res. in Tuberculosis and Ewen Maclean for res. in Obst. and Gynæc. v. App. XXIII. 16.

TERMS. Oct. 1-Dec. 11, 1931; Jan. 12-March 24; Apr. 12-June 30, 1932.

DEATH. The Rt. Hon. Lord Stanley of Alderley, First President of the School.

## UNIVERSITY COLLEGE OF SWANSEA

PRESIDENT—Sir George Barstow, K.C.B. PRINCIPAL—C. A. EDWARDS, D.Sc., F.R.S. REGISTRAR-EDWIN DREW. LIBRARIAN-OLIVE M. BUSBY, M.A. Lond.

Lectr.

## PROFESSORS, LECTURERS, ETC.

Biology Mockeridge, Florence A., D.Sc. Ind. Lectr. Lond. Rees, T. Kenneth, M.Sc. Lectr. Little, Percy A., Ph.D., B.Sc.

Chemistry

Coates, J. E., O.B.E., D.Sc. Birm., Prof. Hinkel, L. E., D.Sc. Lond., F.I.C.

(Organic C.) Lectr.

Ayling, E. E., M.Sc. Lond., A.I.C. Lectr.	Coveney, Miss D. K., Ph.D. Lond. Asst. Lectr.
Hartshorne, N. H., Ph.D. Lond.,	History [Prof.
M.Sc. Birm. Lectr.	Hughes, E. E., M.A. Ox., B.A.
Classics	Medlicott, W. N., M.A. Lond.
Johnson, S. K., M.A. Camb. Prof.	Lectr.
Stevenson, J., M.A. Camb. and	Roberts, Glyn, M.A. Asst. Lectr.
Princeton Lectr. Hill, H., M.A. Sheff. Lectr.	Mathematics
Hill, H., M.A. Sheff. Lectr.	Richardson, A. R., D.S.O., B.Sc.
Westlake, H. D., B.A. Camb.	Lond., A.R.C.S. Prof.
Education Asst. Lectr.	Wilson, R., M.A. Ox. Lectr. Littlewood, D. E., M.A. Camb.
Cavenagh, F. A., M.A. Lond. Prof.	Asst. Lectr.
Jones, Idwal, M.A. Lectr.	Rosenhead, Louis, Ph.D. Leeds
Stephens, D. J., M.Sc. Asst. Lectr. Owen, Annie, M.A., D. de l'U.	and Camb. Asst. Lectr.
Paris Asst. Lectr.	and Camb. Asst. Lectr.  Metallurgy [Prof.
Owen, Annie, M.A., D. de l'U. Paris Asst. Lectr. Engineering Bacon F. M.A. Camb Prof	Edwards, C. A., D.Sc. Manc., F.R.S.
Bacon, F., M.A. Camb. Prof.	Taverner, L., A.R.S.M. Asst. Prof.
Isaacs, R. G., M.Sc. Bris., B.Sc.	Higgins, R., Ph.D. Glas. Lectr.
Lond. (Elec. E.) Lectr.	Smith, A. E. W., Ph.D. Birm.
Fordham, A. A., B.Sc. Lond.	Asst. Lectr.
(Civ. E.) Lectr.	Griffiths, Roosevelt, M.Sc.
Caswell, J. S., M.Sc. Lectr.	Asst. Lectr.  Philosophy
English [Prof.	Heath, A. E., M.A. Camb. Prof.
Thomas, W. D., M.A. Ox., B.A.	Aaron, R. I., D.Phil. Ox., M.A.
Taig, T., M.A. Glas. Lectr. Westcott, Miss I. M., B.A. Bris.,	Lectr.
B.Litt. Ox. Lectr.	Acton, H. B., B.A. Ox. Asst. Lectr.
French	Physics
Williams, Mary, D. de l'U. Paris,	Evans, E. J., D.Sc. Lond., B.Sc.,
M.A., O.A. Prof.	A.R.C.S. Prof.
Diverres, P., M.A. Liv., D. ès L.	Jones, W. Morris, M.A. Camb.,
Rennes, Off. de l'Instr. Pub.	M.Sc. Lectr.
Lectr.	Wright, L., M.Sc. Sheff. Lectr.
Pool, Miss E. M., M.A., Liv. Lectr.	Davidson, P. M., B.A. Camb., Ph.D. Lond. Asst. Lectr.
Geology and Geography	Welsh
Trueman, A. E., D.Sc. Lond. Prof.	Lewis, Henry, M.A. Prof.
Stuart, A., M.Sc. Durh. Lectr. Williams, D. T., M.A. Lectr.	Lewis, Saunders, M.A. Liv. Lectr.
Simpson, Brian, B.Sc. Liv.	Williams, Stephen J., M.A. Lectr.
	, , , , , , , , , , , , , , , , , , , ,
Asst. Lectr.  German [Ind. Lectr.	University Extension
Halliday, F. W., M.A. Manc.	Thomas, P. S., M.A. Staff Tutor
GENERAL INFORMATION	
Incorporated by Royal Charter, date	d Jan. 21, 1920, the College was made
a constituent College of the Univ. of W Univ. on Aug. 13, 1920. The adminis	ales by a Supplemental Charter to the
rooms, and refectory, in addition to s	ome of the Science departments are
, , , , , , , , , , , , , , , , , , ,	concerce departments, are

accommodated in a mansion in Singleton Park, presented, together with 19 acres of land surrounding it and 15 acres for playing-fields, by the Corporation of Swansea, which also gave £50,000 towards the cost of Science buildings. Extensive laboratories have been erected in the Park, on a site adjacent to the main College building, for the departments of Metallurgy, Engineering, Chemistry, and Physics, and a building to accommodate the Arts Departments and Library.

Situated in the heart of a district possessing a long and interesting metallurgical history and presenting an unrivalled variety of present-day metallurgical practice, the College offers exceptional advantages for preparation for professional careers in the metallurgical industry. The manufacturers of the district, who contribute largely to the support of the College, give the staff and students ample opportunities of keeping in close practical touch with manufacturing processes in the works. To ensure the closest possible cooperation with the local industries, Advisory Committees in Metallurgy and Engineering have been set up. All the College laboratories (Physics, Chem., Geol., Biol., Metall., Engin.) are well equipped and include fine experimental plant for instruction and research in combustion engineering.

FACULTIES. Science and Arts. Departments: Metallurgy and Engineering, and Training of Teachers (men and women) for Elem. and Sec. Schools.

Courses for Degrees, etc. Courses (3 years) for the degrees of the Univ. in Pure and Applied Science and Arts; also for the College diplomas in Metall., Engin., and Mathematical Physics, and for the Coll. Certificate in Geog.; and complete Prelim. Science Course for medical students and classes in Law for articled clerks. Engineering students are expected, and, where necessary, helped, to obtain practical experience in works during the greater part of the summer vacation. Afternoon visits to works are arranged frequently throughout the session. Occasional lectures are given by experts on the business, administration and managerial side of industrial undertakings.

FEES. For tuition in Pure or Applied Science, £20; Arts, £15; Registration, £1:1s. p.a.; for Research, from 6 to 10 gs.

RESIDENCE. Hostel for women students. A list of Registered Lodgings is kept by the Registrar.

# THE YEAR 1930-31

BENEFACTIONS. Donations from £5 to £900 for research, etc. Annual Subscriptions, £4902.

New Buildings. A Sports Pavilion has been erected on the playing fields area.

Other Developments. The teaching of German will be carried out in an Independent Dept. of German from the beginning of the session 1931-32.

Courses in Geography up to and including the degree will be provided from the beginning of the session 1931-32.

New Posts. Lectureships in German and Geography.

RESIGNATION. Dr. A. C. Ewing (Philos.), on appointment to a Lecture-ship in the Univ. of Cambridge.

University Extension Work. 18 Univ. Tutorial Classes and 7 Prep. Classes and 6 University Extension Courses, with 621 students. Many single lectures were given by members of the College staff in Swansea and elsewhere. The Coal Owners' Univ. Trust Fund provided for 9 short courses of lectures.

STUDENTS. Full-time: total, 499, including 87 graduates. Part-time: total, 31, including 2 graduates.

DEGREES OBTAINED. Ph.D., 4; M.Sc., 9; B.Sc., 36; B.A., 53; M.A., 4.

# UNIVERSITY COLLEGE OF THE SOUTH-WEST OF ENGLAND, EXETER

PRESIDENT—H.R.H. THE PRINCE OF WALES and DUKE OF CORNWALL, K.G.

DEPUTY PRESIDENT—Sir HENRY Y. B. LOPES, Bart., D.L., M.A.

PRINCIPAL—JOHN MURRAY, M.A. Ox., LL.D. Aberd.

VICE-PRINCIPAL—Prof. W. H. LEWIS, M.A. Ox.

REGISTRAR AND SECRETARY—A. K. WOODBRIDGE.

#### PROFESSORS, LECTURERS, ETC.

Astronomy

Lockyer, W. J. S., M.A. Camb., Ph.D. Gött., F.R.A.S.

Hon. Lectr.

Botany and Horticulture

Sager, J. L., M.A. Camb., F.L.S. Head of Dept.

Cumming, A. M., A.R.C.S.I.

Asst. Lectr.

Celtic [Hon. St. Petrock Lectr. Jenner, H., M.A. Wales, F.S.A.

Chemistry [Prof. Lewis, W. H., M.A. Ox., F.I.C.

Britton, H. T. S., D.Sc. Lond., D.I.C., F.I.C.

Lectr. in Physical C. King, Miss R., M.Sc. Lond. Lectr.

Wray, E. C.

Lectr. in Chem. of Dyestuffs. Robinson, R. A., M.Sc., Ph.D. Birm. Demr.

Classics

Fletcher, F., M.A. Ox. Prof. Gordon, M. L., M.A., B.Litt. Ox.

Asst. Lectr.

Heap, M., M.A. Camb. Asst. Lectr.

Commerce and Economics

Sykes, J., M.Com. Manc., M.A. Leeds Head of Dept. Baster, A. S. J., M.Com., B.Sc.

Cultural Evolution

Dawson, C., M.A. Ox. Lectr. Education and Psychology

Watkins, S. H., M.A. Wales, Ph.D.

Walker, Miss A. J., M.A. Birm., B.A. Lond.

Mathias, Miss S. Y., M.A. Liv. ..

Kaye, M., M.A., Ph.D. Lond., Asst. Lectrs.:

Parker-Oxspring, J. H., M.Sc. Birm. Browning, F. R.

11 Assts, and Pt.-time Lectrs, and Instrs. in Teachers' Training Dept.

Elocution and Dramatic Art Riley, W. A., L.R.A.M.

English

Horrox, W. L., M.A. Camb. Prof. Wright, Miss B. D., M.A. Edin., Ph.D. Lond. Lectr.

Lloyd, L. J., B.A. Camb.

Asst. Lectr. Dexter, Miss K. M., B.A. Lond.

Student Lectr. Extra-mural Studies Head.

Patterson, E. J., M.A. Camb.

Geography

Lewis, W. S., M.Sc. Lond.

Reardon Smith Prof. Clayden, A. W., M.A. Camb., F.G.S. Visiting Director.

Simkins, Miss E., M.A. Liv.

Asst. Lectr.

Old, L., B.A. Lond. Student Demr.

Geology, Physical
Howard, F. T., M.A. Ox. Lectr.
History
Sykes, Rev. N., M.A. Leeds, M.A.,
D.Phil. Ox. Prof.
Handcock, W. D., M.A. Brist.
Lectr.

Greenaway, G. W., M.A. Camb. Asst. Lectr.

Morgan, J. G., M.A. Ox., LL.B. Lond.

Hd. of Dept. & Dir. of Legal Studies.

Roberts, C. H., M.A. Ox.

Asst. Lectr. Turner, R. W., M.A., LL.M. Camb. Tutor.

Lectr. in Book-keeping, etc.: Turner, R. W., M.A., LL.M. Camb. Hon. Lectr. in Const. Law and Public Adminisn.:

Parry, H. Lloyd, O.B.E., B.A., B.Sc., LL.B.

Mathematics

Brown, T. A., M.A., B.Sc. Edin.,
B.A. Camb., F.R.A.S. Prof.
Mallison, H. V., M.A. Camb.,
B.Sc. Lond. Lectr.
Unthank, H. W., M.A. Camb.,
M.A., B.Sc. Lond., F.R.A.S.
Lectr.

Constable, K. M., M.A. Ox.
Part-time Asst.
Modern Languages

Schopp, J. W., M.A. Lond. Prof.

Wilson, Aileen, M.A. Dub., L. ès L. Paris, D. de l'U. Paris

Asst. Lectr.

Trudgian, Helen M., L. ès L. Paris Asst. Lectr.

Macaulay, Eve, M.A. Lond.

Classe, H., L. ès L. Asst. Lectr. Asst.

Music

Armstrong, T., M.A., D.Mus. Ox.

Head of Dept.

Philosophy [Hd. of Dept.]

Levine, I., M.A., D.Litt. Glas.

Phonetics

Woodbridge, Vera, L.R.A.M. (Eloc.) Part-time Asst. Physics

Newman, F. H., D.Sc. Lond., A.R.C.S., F.Inst.P. Prof. Searle, V. H. L., M.Sc. Lond.

Lectr.
Hoare, F. E., M.Sc. Lond., A.R.C.S.
Asst. Lectr.
Politics, International [Lectr.

Patterson, E. J., M.A. Camb.

Zoology

Harvey, L. A., M.Sc. Lond. Lectr. & Head of Dept. Browning, F. R. Asst. Lectr.

# University Extension

Chairman of Committee for External Studies and Joint Hon. Sec. for Tutorial Classes: E. J. Patterson, M.A.

## GENERAL INFORMATION

Founded 1865. Organized as University College, 1901. Incorporated 1922.

Classes in Arts, Science, Econ., Com., Law, Music, Agr., Hort., for London Univ degrees and Diplomas. Courses are provided for Elementary and Secondary teachers, for entrance into Civil Service, and for the first year of Medical study. Provision for special work in English (incl. Phonetics) for foreigners for r or more terms. (Prospectus from Registrar.) The Training Dept. is recognized as a Training College for Elem. and Sec. teachers. The Royal Albert Memorial Library (60,000 vols.) and Museum are closely associated with the College, and the important collections of books and scientific

material are freely available for advanced students of the College. A Dept. of Horticulture was added in Oct. 1929.

Affiliation. The College is affiliated to the Univs. of Ox. and Camb. It is recognized by the Camb. Special Board for Med. and the Conjoint Med. Board as a place of instruction in Chem., Physics, and Biol., and by the Institute of Chemistry for instruction in preparation for its Examns.

FACULTY BOARDS in Arts, Sci., and Econ. supervise students.

FEES. Sessional: Interm. course, Arts or Econ., £25; Sci., £30; final course in Arts or Econ., £25; Sci., £30; fees at reduced rate payable by students from Devon, Cornwall, Exeter, or Plymouth; Law, 8 to 16 gs.; Music (term), 6 gs.; for foreign students (term), 6 gs.; Research, 8 to 14 gs.; Teachers' Training Dept. (Elem. and Sec.), £10; Registration, £2 (except: Postgrad., £1; Law, £1:1s.; Music, 2s. 6d. a term).

RESIDENTIAL FACILITIES. For women—(a) Hope Hall (50); (b) Bradninch Hall (60); (c) Lopes Hall (13), sessional fee, £58-£63; (d) Sandford Hall (30). For men—(a) Reed Hall (75), sessional fee, £69-£73; (b) Grendon House (45), £63; (c) Kilmorie Hall (40), £63 (£24:15s. for students in training). All students not living at home must reside in one of the Halls of Residence. Foreign students residing for I or 2 terms only, £25-£26:5s.

Scholarships for graduates: one or two in Sci. annually from Andrew Simons Scholarship Fund; one annually to Mod. Lang. student for study abroad.

Publications. Prospectus, issued (free) in July; Annual Report (free) in Oct.; the Ram, College Magazine (terminally); the College Field Club Proceedings; Guild of Undergraduates' Handbook.

## THE YEAR 1930-31

Benefactions. From Sir Henry Lopes, Bart., D.L., over £2000 for Scholarships tenable at the College. From Mr. George Harwood of London, £200 to enable an old student of the Coll. to proceed to the Theological Coll., Wells. Ar. C. H. Dent has provided two tennis courts at the Lopes Hall of Residence for Women.

New Buildings. The Science Block on the Streatham Estate completed, and the Depts. of Chem. and Physics housed there from Oct. 1, 1931. The building of Mardon Hall for 80 men students has begun, and the Hall is expected to be ready in Oct. 1932. Plans are being prepared for the extension of Lopes Hall. No. 76 Pennsylvania Road has been bought as an annexe to Kilmorie Hall.

New Posts. Independent Lecturer in Eloc. and Dramatic Art; Instructor in Handwork.

OTHER DEVELOPMENTS. Evening Science Course covering syllabus for the Prelim. Sci. Examn. of the British Pharmaceutical Society and a portion of the syllabus for the Interm. B.Sc. Examn. of London Univ. The Dept. of Scientific and Industrial Research is continuing its support of the researches carried out in the Dept. of Chem. The maintenance grants for the Session 1931–32 amount to £532. A grant of £30 was made by the Government Grants Committee of the Royal Society towards the cost of apparatus required for chemical research. The co-ordination of the Extra-mural work of the College and other Adult Education activities in the area has been advanced by the institution of a Delegacy to which the L.E.As., the W.E.A., Women's Institutes and Univ.

Extension Committees will be invited to elect representatives. A scheme for the union of the University College and Seale Hayne Agricultural College is under consideration. The Summer School for Foreign Students, August 1931, attracted 166 students from 21 countries.

EXTRA-MURAL WORK. 17 Tutorial Classes given, attended by 354 students; 9 Extension Courses, attended by 196 students.

VISITS OF TEACHERS FROM OTHER UNIVERSITIES. Prof. J. C. Ransom, Prof. of Engl. in the Vanderbilt Univ., U.S.A., is a Visiting Professor at the College for one year.

RETIREMENTS AND DEATHS. Retirement: Prof. W. J. Harte (Hist.) at age limit. Deaths: Sir Ian Amory, Bart., Treasurer of the College since 1926. His Grace the Duke of Somerset, Mr. W. Townsend, and Mr. J. F. Young, members of Council.

Students. Full-time: total, 505, including 62 graduates. Part-time: total, 143, including 4 graduates and occasional. Extra-mural (Tutorial and Extension Classes), 550. Summer School for Foreign Students, 1931, 166.

DEGREES OBTAINED. B.A., 38; B.Sc., 16; B.Sc. (Econ.), r; B.Mus., r; LL.B., r; M.A., r; M.Sc., 2; Ph.D., r.

# UNIVERSITY COLLEGE OF NOTTINGHAM

PRESIDENT—His Grace THE DUKE OF PORTLAND, K.G., G.C.V.O.

VICE-PRESIDENTS—Alderman E. HUNTSMAN (Chairman of Council); GEORGE SPENCER, J.P.

PRINCIPAL—HUGH STEWART, C.M.G., D.S.O., M.C., M.A. Camb.

REGISTRAR-J. E. SHIMELD, F.C.I.S.

LIBRARIAN-G. ELLIS FLACK, M.A.

#### PROFESSORS, LECTURERS, ETC.

Biology

Holden, H. S., D.Sc. Manc., F.R.S.E., F.L.S. (Botany)

Prof.

Lectrs. and Demrs. :

Bexon, Dorothy, M.Sc. Lond. (Bot.).

Ellis, Myfanwy, M.Sc. Wales (Bot.). Warden, Winifred M., B.Sc. Birm. (Bot.).

Lister, H., M.Sc. Liv. (Zool.). Hutchinson, Harriet J. (Physiol. and Histol.)

Chemistry and Metallurgy

Kipping, F. S., Ph.D. Mun., D.Sc. Lond., F.I.C., F.R.S. Prof. Prideaux, E. B. R., M.A. N.Z., D.Sc. Lond., F.I.C. Reader.

Lectrs. and Demrs.:

Firth, J. B., D.Sc. Manc., M.Sc. Durh., F.I.C., M.Inst.C.E.

Trotman, S. R., M.A. Camb. Watson, F. S., M.Sc. Manc.

Laxton, F. C., B.Sc. Lond., A.I.C. Driver, J. E., M.Sc., Ph.D. Lond., A.I.C.

Shaw, B. D., M.M., B.Sc., Ph.D. Lond., A.I.C.

Classics and Philosophy [Prof. Granger, F. S., D.Lit., M.A. Lond. Barker, E. P., M.A. Ox., D.Litt. Durh. (Classics) Reader.

Economics and Commerce

Blythen, S., O.B.E., F.C.A., F.S.A.A. (Acctcy.) Prof.

Radford, A., B.Sc. Econ. Lond.

Lectr. in E.
Howard, S. C. Lectr. in C.
And other part-time Lectrs. in Insurance, Accountancy, and
C. Law.

Education

Wortley, H. A. S., M.A. Camb. Prof.

Lectrs.:

Newton, W. H., B.Sc. Lond. Moncrieff, Agnes, M.A. Edin. Becket, Edith M., M.A. Lond.

Ward, Lizzie M.

Adam, Annie K. Lewis, M. M., M.A. Lond.

Dallas, Adolphine E. M. M., M.A., B.Sc. Edin.

Sumner, W. L., B.Sc. Lond.

Asst. Lectrs.:

Stewart, A. H., B.A. Lond. Crump, Helen J., B.A. Ox., Ph.D. Lond.

Warden, Winifred M., B.Sc. Birm. Downing, S. F., B.A. Lond.

And other part-time Lectrs. in Hygiene, Music, Handicraft, and Art.

2 Lectrs. in Phys. Exercises.

Engineering, Civil and Mechani-	Brameld, Nina M., M.A. (Constit.
cal [Prof. Bulleid, C. H., O.B.E., M.A. Camb.	Hist.) Lectr. Howard, S. C. (Book-keeping)
Engineering, Electrical	Lectr.
Cotton, H., M.B.E., D.Sc. Manc. Hd. of Dept.	Mathematics Piaggio, H. T. H., M.A. Camb.,
Lectrs. and Demrs.:	D.Sc. Lond. Prof. Green, H. G., M.A. Camb. Lectr.
Dickson, J. M., B.Sc. Lond. (M. E.).	Prior, L. E., M.Sc. Lond. Lectr.
Wilde, J. H., B.Sc. (Eng.) Lond. (Civ. Engin.).	Underwood, F., M.Sc. Lond. Lectr.
Golding, E. W., B.Sc. Manc.	And other part-time Lectrs.
Rolinson, J. G., Whit. Ex.	Metallurgy, v. Chem.
Hutchins, H. J. (Typog.). Thompson, H. H. (Typog.).	Mining
Ruddick, W.	McMillan, W. H., B.Sc. Glas.,
And other part-time Technical	M.I.Min.E. Prof.
Teachers.	Watson, J. M. R., B.Sc. Glas. Lectr.
English	Fawcett, E. S., B.Sc. Lond. Lectr.
Hewitt, R. M., M.A. Ox. Prof.	And other part-time Lectrs.
Griffiths, G. S., M.A. Wales, B.Litt.	
Ox. Lectr.	Modern Languages Weekley, E., M.A. Camb. Prof.
Selby, Alice, M.A. Camb. Lectr. De Castro. Inez. M.A. Ox. Lectr.	Lectrs.:
	Peck, Nancy P. (English Pho-
Geology and Geography Swinnerton, H. H., D.Sc. Lond.,	netics).
A.R.C.S., F.G.S. Prof.	Bourdache, E., B. ès L. (French).
Richardson, W. A., B.A., D.Sc.,	Guigou, Marguerite, L. ès L.
B.Sc.(Eng.) Lond., F.G.S.	(French).
Hon. Lectr. in Petrology.	Schweizer, W. R., Ph.D. (German).
Lecturers:	Moroni, Flora (Italian).
Edwards, K.C., B.A. Lond. (Geog.).	Lavrin, Prof. J. (Russian and Slavonic).
Clift, S. G., M.Sc. Lond. (Geol.).	Chamberlain, G. L., M.A. Edin.
Scarfe, N. V., B.A. Lond. (Geog.).	(Spanish and Portuguese).
Hebrew [Lectr. Sanders, H. F., B.A., D.D. Lond.	Music
	Johnson, B., B.A., Mus.B. Camb.,
History Owen, L. V. D., M.A. Ox. Prof.	F.R.C.O.
Oswald, F., D.Sc. Lond., F.S.A.	Sr. Lectr. and Hd. of Dept.
Hon. Reader.	Lectr. and Tutor.
Brameld, Nina M., M.A. Lond.	Henniker, L., B.Mus. Ox., F.R.C.O.
Lectr.	Lectr.
Wood, A.C., M.A., B.Litt.Ox. Lectr.	And other part-time Lectrs.  Pharmacy [Director of Dept.
Law May, H. R. D., M.C., M.A., LL.B.	Bentley, A. O., Ph.C.
Camb. Director of Dept.	Trease, G. E., Ph.C. Lectr.
Cursham, C. (Real Property)	Driver, J. E., M.Sc., Ph.D. Lond.,
Lectr.	A.I.C. Lectr.
Granger, Prof. F. S., D.Lit., M.A.	Shaw, B. D., M.Met. Shef., B.Sc.,
(Roman Law) Lectr.	Ph.D. Lond., A.I.C. Lectr.

Stather, Mrs. C. Lectr. Turner, H. A., Ph.C. Lectr.

Physics

Brose, H. L., M.A., Ph.D. Ox., D.Sc. Adel., F.Inst.P. Prof.

Lectrs. and Demrs.:

Franks, A. H., B.Sc. Lond.

Browning, Helen M., M.Sc., Ph.D. Lond., F.Inst.P.

Davy, N. M. M., M.Sc. Lond., A.R.C.S.

Huxley, L. G. H., M.A., D.Phil. Ox.

And other part-time Lectrs. and Demrs. in Telegraphy, etc.

Psychology [Lectr. Sprott, W. J. H., M.A. Camb.

Technology, v. Engin., Textiles

Textiles

Davis, W., M.A. Edin. Prof. Edwards, C. H., M.A. Camb.

Research Asst.

Lectrs. and Demrs.: Lomax, J., F.I.C. (Yarn Testing). Trotman, S. R., M.A. Camb., F.I.C. (Dyeing and Bleaching). Boswell, W. E. (Hosiery Manu-

facture).

Buckley, G. H. (Hosiery Manufacture).

Richardson, L. G. (Dyeing and Bleaching).

And other part-time Demrs.

Zoology, v. Biol.

#### University Extension

Peers, Prof. R., M.C., M.A. Liv. Hd. of Dept.

Staff Tutors: Wright, G. G. Neill, M.A., B.Ed.

Wells, F. A., B.Sc. (Econ.) Lond. Chambers, J. D., B.A., Ph.D.

Jarman, T. L., B.A. Ox. Eagle, E. C., B.Sc. Econ.

Brettle, R. E., M.A. Lond., D.Phil.

3 Organizers.

ASSOCIATED COLLEGE: MIDLAND AGRICULTURAL COLLEGE, Sutton Bonington. Subjects for the Final Examn. for the London B.Sc. in Agric. are taken at this College, those for the Intermediate only being taken at Univ. College, Nottingham.

## GENERAL INFORMATION

The College was opened in 1881. The Faculties of Arts, Economics and Commerce, and Pure Science occupy the University Park Buildings. The Faculty of Applied Science occupies the Shakespeare Street Building. The City Public Library is housed in the east wing of this building.

COURSES: For London External degrees in Arts, Econ., Com., Music, Div., Pure Science, Law, Med., Agric., Engin., and Mining; Diploma of the College in Comm., Geog., Adult Education, Engin., Elect. Engin., Mining, Mine Surveying, Hosiery, Dyeing and Bleaching, Fuel Technology (each 3 yrs.); Social Study Diploma (2 yrs.); Certif. in Music; Bd. of Educn. Elem. Teachers' Certifs. and Cambridge Secondary Teachers' Certif.; Assoc'ships of the Insts. of Chem. and Physics; Colliery Manager's Certif.; Nat. Diploma of Inst. of Mech. Engineers; National Dipl. of Inst. of Elect. Engineers; Law Society's Examns.; Civil Service Appointments; Pharmacy Diplomas; L.R.A.M. and L.R.C.M.; Post-grad. and Research courses in Arts and Pure Science. Special English course for Foreigners.

Evening Classes, including some held on Thursday aftn. and Sat. morning and aftn., for London B.Sc., B.Sc. Econ., B.Sc. Engin., B.A. Interm. Arts;

Comml.; Dispensing and Pharmacy; Sanitary Science; Engin. and Technology; Mining; Textiles, including Textile Testing, Hosiery, Dyeing.

The session for Day Classes is Sept.-July; Evening, Sept.-April.

FEES. Tuition composition, per annum: Interm. or Degree courses in Arts, Div., or Econ.—24 gs.; in other Faculties, or Diploma courses in Commerce, Engin., Mining, Mine Surveying, or for A.I.C. or A.I.P.—30 gs.; Diploma course in Geography—24 gs.; Social Study Diploma—£10; L.D.S.—18 gs.; Colliery Manager's Certif.—12 gs.; Pharmacy (complete course)—£30; Law—12 gs.; English course for Foreigners—£13:10s.; Registration fee, £1:10s. p.a.; Union fee, £1:10s. p.a.

Evening Classes, £1 per session.

Research Scholarships in Arts up to the value of £50, Science up to the value of £100 are awarded annually. Special facilities for research in all subjects.

RESIDENCE. Mapperley Hall, primarily for students in the Training Department, and Lenton Hall (men). F.B. Hall, University Park and Broadgate House (women). Registered lodgings, 30s. to 40s. Students are, when possible, placed with private families.

UNIVERSITY EXTENSION. Extra-mural adult education is organized as a department of the Faculty of Arts. The Head of the Dept., a whole-time professor, is assisted by an Asst. Director and 9 staff tutors, 2 organizing lecturers, and many part-time tutors and lecturers.

Publications. Calendar (Nov.), is.; Prospectus (Day), 6d., (Evening), 2d.; The Gong, 3 times a year; Diary (Oct.), is. 6d.

# THE YEAR 1930-31

BENEFACTIONS. The Endowment Fund, inaugurated during the summer of 1928, has now reached £145,024. Grants of £250 from Lincoln, £300 from Kesteven, £200 from Lindsey, £50 from Holland, £100 from Northamptonshire, £50 from the Soke of Peterborough.

New Developments. Three post-graduate Scholarships in Sci. open to graduates of any approved British Univ. See Appendix XXIII. Five Foundation Entrance Scholarships, annual value up to £80 each. A separate Dept. of Elec. Engin. formed. A High Tension Laboratory installed. A Research Committee in Textiles established, the Director of the Wool Research Industries being a member. The Board of Education sanctioned an increase of 100 recognized students in the Training Dept. Arrangements made for students in the E. Midland Training Coll. for Teachers in Handicraft, at Loughborough Coll., to attend for the Principles and Practice of Educn., Engl., and Hist.

New Posts. A Librarian appointed. A Research Asst. for Textiles appointed, towards whose salary the Hosiery Trade Section of the Nottingham Chamber of Commerce, and the Wool Industries Res. Assocn. will contribute for 3 yrs.

RETIREMENTS. Prof. A. W. Kirkaldy (Econ. and Comm.). Prof. P. E. Shaw (Physics). C. E. Beasley (Geog.), appointed Prof. of Geog., Rangoon. J. Barr (Yarn Testing), appointed Manager, Bradford Conditioning House. Mrs. E. Kirkaldy (Music).

EXTRA-MURAL WORK. At the beginning of the session 1930-31, the area served by the Extra-mural Dept. was modified, owing to the constitution of a new Joint-Committee for Adult Edn. in Leicestershire, on which this College

is represented. The new committee has responsibility for tutorial and similar classes, but Nottingham retains the control for extension courses in the Northern part of the County. During the session 47 three-year tutorial classes, 6 preparatory tutorial classes, 37 one-year classes, and 14 terminal courses were held. 1947 students attended extra-mural classes. 20 Univ. Extension Courses and 35 short courses were arranged. 441 students attended University extn. courses.

STUDENTS. Full-time, 644; graduates, 65. Part-time and occasional, 367; graduates, 2. Evening students, 2321; graduates, 43. Extra-mural students, 2268; vacation courses, 107.

DEGREES OBTAINED. M.A., I; B.A., 34; B.Sc.Econ., I; B.Com., 3; B.Sc., 26; B.Sc.Engin., 6; M.Sc., I; Ph.D., I.

# UNIVERSITY COLLEGE, SOUTHAMPTON

VISITOR-H.R.H. THE DUKE OF CONNAUGHT AND STRATHEARN, K.G., K.P., K.T.

President—Claude G. Montefiore, M.A., D.D.

VICE-PRESIDENT—Rt. Hon. LORD FORSTER OF LEPE, G.C.M.G.

TREASURER-W. F. PERKINS.

PRINCIPAL—KENNETH H. VICKERS, M.A.

REGISTRAR-GEORGE GRANT, B.A.

#### PROFESSORS, LECTURERS, ETC.

Botany

Mangham, S., M.A. Camb. Prof. Loader, Miss F. M., B.Sc. Lond.

Lectr. Sparshott, Miss E. N., M.Sc. Lond.

Johnson, C. G., B.Sc. Lond.

Demr.

Chemistry

Boyd, D. R., D.Sc. Glas., Ph.D. Heid., F.I.C. Smith, A. E. Clarence, M.A. Camb., A.I.C.

Lectr. in Physical C. Asst. Lectr. Jeffery, G. H., B.Sc. Lond. Demr. Pethrick, S. R., B.Sc. Lond.

Demr.

Classics

Prof. Forsey, G. F., M.A. Lond. Asst. Lecturers:

Holley, Miss N. M., B.A. Camb. Duncan-Jones, A., B.A. Camb.

Economics and Commerce Ford, P., B.Sc. (Econ.) Lond.

Lectr. in Charge. Hodgson, R. A., B.Com. Lond. Asst. Lectr.

Education and Philosophy Cock, A. A., B.A. Lond. Prof. Dudley, G. G., B.A., LL.B. R.U.I. (Lectr. in Logic) Sr. Lectr. Lecturers:

Hales, Miss R. B., M.A. Ox. Steel, Miss M. J., M.A. Edin. Cawthorne, H. H., B.Sc. Lond. Harry, H. T., B.Sc. Bristol.

Taylor, Miss D. M., B.A. (Handicraft).

Asst. Lectrs. (part-time): Payne, H. (Phys. Training, Men).

Ricks, Miss E. M. (Phys. Training and Hyg., Women).

Dove, A. G. (Handicraft). Williams, S. D. (Handicraft).

Engineering Cave-Browne-Cave, Wing Commander T. R., C.B.E., R.A.F. (retired), M.I.M.E. Prof.

Engineering, Civil [Sr. Lectr. Mann, E. E., M.Sc. (Eng.) Leeds

Engineering, Electrical Spary, P. G., B.Sc. (Eng.) Lond.,

M.Eng. Sheff., M.I.E.E. Sr. Lectr.

Chester, C. E., B.Eng. Sheff. Lectr.

Engineering, Mechanical Glover-James, H., B.Sc. (Eng.) Lond., Dip. Eng. (Edin.)

Lectr.

Asst. Lecturers:

Ford, G. P.

Moyle, R. C., M.I.Mar.E. Leech, H., Experim. Engineer.

English Lang. and Lit. [Prof. Pinto, V. de S., M.A., D.Phil. Ox. Lectrs.:

Leishman, J. B., M.A., B.Litt. Ox. Potter, S., M.A. Lond., B.Litt. Ox., Ph.D. Prag.

Phare, Miss E. E., B.A. Camb. Asst. Lectr.

Geography

Rishbeth, O. H. T., M.A. Ox., B.A. Adel. Prof.

Miller, Miss F. C., B.A. Leeds Lectr.

Tavener, L. E., M.A. Camb.

Asst. Lectr. Boswell, Miss K. C., B.A., B.Sc.

Lond. Demr.

Geology and Zoology

Sherriffs, W. R., M.A., D.Sc. Aberd. Prof.

Asst. Lecturers:

Anderson, F. W., M.Sc. Leeds Stott, F. C., B.Sc. Manc.

Historv

Lyttel, Rev. E. S., M.A. Ox. Prof. Asst. Lecturers:

Rutherford, J., M.A. Durh., Ph.D. Mich.

Tyerman, D., B.A. Ox.

Law

Cook, W. G. H., LL.D., M.Sc. Reader.

Asst. Lectrs. (part-time): Buchanan, R. D., B.A. Camb. Groves, L. G., LL.B. Lond. Stanier, J. G., LL.B. Lond.

Mathematics, Pure and Applied Howland, R. C. J., M.A. Camb., D.Sc. Lond. Prof.

Casson, R., M.A. Camb. Lectr. Trout, Miss A. M., B.A. Lond.

Lectr.

Maunsell, F. G., M.A., Ph.D. Camb. Lectr.

Modern Languages

Patchett, E. W., M.A. Camb., O.I.P. Prof.

Lawton, H. W., M.A. Wales, D. ès L. Paris Lectr.

Hamilton, Miss G. H.

(Spanish and French) Lectr.

Lucas, W. I., M.A. Brist.

(German) Asst. Lectr. Borel, Mlle. Jeanne, L. ès L. Paris, Dip.d'E.S.

Lectrice Française.

Music

Williams, D. C., F.R.C.O.

Lectr. in Charge. Philosophy, v. Educa.

Physics

Stansfield, H., D.Sc. Lond. Prof. Tomlinson, H. J., B.Sc. Lond.

Lectr.

Carpenter, L. G., B.A., B.Sc. Ox. Lectr.

Weintroub, S., B.A. Ox. Asst. Lectr.

Zoology, v. Geol.

# GENERAL INFORMATION

Founded 1850; opened as the Hartley Institution, 1862. Incorporated as the Hartley University College under a scheme of the Board of Education,

The Library, 44,300 vols., includes the Cope collection of Hampshire books,

pamphlets, and broadsheets.

Classes in Arts, Science, Commerce, Engineering (Civ., Mech., and Elec.), Music, and Law prepare for the External degrees of the Univ. of London. It provides courses for Elem. and Secondary Teachers, for entrance into the Civil Service, the first year of Med. Study, Pharmacy, Surveying, etc. It is recognized as a Training College for Elem. and Secondary Teachers. Through its Evening Classes (attended by upwards of 600 students) it performs the function of a Technical Institute. A Dept. of Law, instituted in 1923, is recognized as a

Law School under the Solrs.' Act. The Associateship (Assoc. U.C.S.) implies, unless honorary, attendance at day or evening classes during at least one full session. Diplomas are awarded in Commerce, Engineering, Engin. Research, Geography, Advanced Geog., Law, and Music. Special Diploma in English for foreign students.

Admission. The minimum age for both Day and Evening students is 16. Each full-time student is placed under the supervision of a member of the Staff. who acts as his Tutor.

FEES. The sessional fee is £25 for Courses in Arts, Commerce, and Music; £32 for Courses in Science and Engineering; and £30 for the Teachers' Diploma Course. Students whose parents are ratepayers within County Borough, Southampton—£18:15s., £22:1os., and £24 respectively.

EXHIBITIONS AND SCHOLARSHIPS. The Coll. offers annually 10 open Exhibitions (free tuition); 7 open Scholarships (£50 p.a.); the Seymour J. Gubb Scholarship (£50 p.a.); the Alex Hill Memorial Scholarship (£50 p.a.); and the John Scott-Montagu Scholarship (£50 p.a.), all tenable for 3 yrs.

Scholarships for Graduates. One of £100 for Research. One of instruction fees in Educn. Loan fund for senior students.

RESIDENTIAL FACILITIES. South Stoneham Hall of Residence for men; Warden—Prof. A. A. Cock, B.A. New Hall, a Hall of Residence for men; Warden—Dr. H. W. Lawton, M.A. Highfield Hall, a Hall of Residence for women; Warden—Miss P. K. Leveson, M.A. South Hill, Hall of Residence for men; Warden—Prof. T. R. Cave-Browne-Cave, C.B.E.

Publications. Calendar (Sept.), free; Halls of Residence Prospectus, free; Students' Magazine, 6d.; Wessex Magazine (June), 1s. 6d. annually.

# THE YEAR 1930-31

BENEFACTIONS. Gifts to the Appeal Fund, £2600.

NEW BUILDINGS. New Hall, a new Hall of Residence for 135 men, cost approximately £50,000. A new Athletic pavilion on the Athletic Grounds, cost over £5000. Extension to main building of the College completed at a cost of £3000, affording additional lecture rooms.

New Posts. Asst. Lectureships in Classics and Physics. Experimental Engineer.

DEPARTMENT OF EXTRA-MURAL STUDIES. Activities in Hampshire are increasing. West Sussex pioneer work is promising. Work in the Isle of Wight is being organized. In Dorset a clear demarcation as between the various institutions arranged.

RESIGNATIONS. Prof. J. Eustice (Engin.), on reaching age limit. Prof. E. L. Watkin (Maths.), owing to ill-health. Miss E. R. Aubrey (Engl.), on reaching age limit. Dr. S. J. Crawford (Engl. Lang.), on appt. as Reader in Engl. Lang. in Edinburgh Univ. (since died). W. A. Laidlaw (Classics), on appointment in the Univ. of St. Andrews. Mrs. F. G. Maunsell (Classics). Miss E. Appleyard (Educn.), on appointment to the Training College Section of Achimota College, Accra.

STUDENTS. Full-time: total, 474, including 45 graduates. Part-time: total, 154, including 3 graduates (day), 602 (evening).

Degrees obtained. B.A., 26 (Hons.), 5 (Ord.); B.Sc. Special, 4 (Hons.), 2 (Ord.); B.Sc. General, 2 (Hons.), 16 (Ord.); B.Sc. Econ., 3 (Hons.); B.Com., 1 (Ord.); B.Sc.Eng., 2 (Hons.), 5 (Ord.); LL.B., 3 (Ord.).

# ST. DAVID'S COLLEGE, LAMPETER

VISITOR—THE RT. REV. THE BISHOP OF ST. DAVID'S. PRINCIPAL—REV. CANON MAURICE JONES, D.D. OX.

The College was founded in 1827 for the purpose of affording to persons intended for the Ministry of the Church, especially in Wales, a sound and liberal education on the lines of that offered by the older Universities. Incorporated by Royal Charter, it is empowered to confer degrees in Arts and Theology. Residence for nine full terms and the passing of three examns. conducted by examiners appointed by Oxford and Cambridge are requisite for B.A., ten terms for B.D.

Profs.—Theol. and Greek, The Principal; Science, J. C. Evans, M.A. Ox.; Latin, Rev. G. W. Wade, D.D. Ox.; Engl. and Phil., H. Walker, M.A., LL.D. Ox. and Glas., D.Litt. Wales; Welsh, Rev. R. H. Richards, M.A. Ox.; Hebrew and Theol., Rev. A. E. Morris, M.A. Ox., B.A.

Lectrs.—Dawson, D., B.A. Leeds, M.Litt. Camb. (*Hist.*); Bartlett, Rev. D. D., M.A. Ox., B.A., B.D. (*Theol.*); Morgan, Rev. Wm. H., B.D. Lond., B.A. (*Theol.*); Harris, H. A., M.A. Ox. (*English and Classics*); Crawford, D. S., M.A. Camb. (*Classics and Hist.*); Thomas, Rev. Canon D. W., M.A. Ox., B.A. (*Pastoral Theol.*), Hon. Lectr.

SCHOLARSHIPS. The Dillwyn Llewelyn Trust provides £150 p.a. from which scholarships are granted to students proceeding to Oxford or Cambridge under the Affiliation regns. The Evan Jones scholarship in Hellenistic Greek is tenable by a post-grad. student.

Post-graduate Study. Grants amounting to £450 p.a. for post-grad. students in Theol. are offered to grads. and licentiates of the Coll. and to grads. of any recognized Univ. seeking ordination in the Church of Wales.

DIPLOMA IN THEOLOGY. A Dip. in Theol. is granted to grads. of the Coll. or of any Univ. who reside for 2 yrs. and pass the necessary examns. after qualifying for their Arts degree. The Dipl. is accepted as an alternative to the Genl. Ordination Examn. of the Church of England.

Students, 187, including 13 graduates.

DEGREES. B.A., 43; B.D., 1.

# THE SCOTTISH UNIVERSITIES

St. Andrews Glasgow ABERDEEN EDINBURGH

#### REPRESENTATIVES IN PARLIAMENT

JOHN BUCHAN, LL.D.; DUGALD M'COIG COWAN, M.A., LL.D.; A. NOEL SKELTON, B.A.

In Constitution these 4 Universities have, under the operation of the Univs. (Scotland) Acts 1858 and 1889, been to a great extent assimilated. By the former Act 2 new bodies, called the Univ. Court and General Council, were instituted; by the latter a Committee of H.M.'s Privy Council was constituted, and an Executive Commission was created with extensive powers, which it continued to exercise till the end of 1897. These Commissioners issued ordinances, inter alia, for degrees, for the instruction and graduation of women, for special study and research, and for the constitution of a Students' Representative Council with power to petition the Senatus Academicus and the Univ. Court.

The Chancellor is elected (for life) by the General Council, of which he is President. He is empowered to nominate a Vice-Chancellor, who may confer degrees in his absence, but cannot discharge any other of his duties. The Vice-Chancellorship is at the present time held in each Univ. on the Chancellor's nomination by the Principal, who is appointed to the Principalship by the Crown (except in Edinburgh) and is President of the Senatus Academicus, and, in the absence of the Rector, of the Univ. Court. The Rector is elected every 3 years by the matriculated students. He is the official President of the Univ. Court.

The University Court consists of the Rector, Principal, the Lord Provost of the City (in St. And. the Provost of St. Andrews and Lord Provost of Dundee), and Assessors appointed by the Rector, Chancellor. Senatus, General Council, and (except in St. Andrews) Town Council. In St. Andrews the Principals of St. Mary's Coll. and Univ. Coll., Dundee, are also included in it. There is provision for the representation of other affiliated Colleges. The Court, a body corporate with full power to administer the property belonging to the Univ., is a Court of Appeal from the Senatus and has power, since the expiration of the powers of the Commrs. under the Act of 1889, to found new chairs with the approval of the Univs. Committee and make other ordinances with the approval of H.M. in Council. It has, inter alia, powers to appoint professors whose chairs are in the patronage of the Univ., examiners and lecturers; to define the nature and limits of a professor's duties under his commission; and to recognize for graduation purposes the teaching of any College or individual teacher, under the regns. providing for such recognition.

The Senatus Academicus, consisting of the Principal, the whole of the Profs., and certain elected Readers and Lecturers, is entrusted with the regulation and superintendence of the teaching and discipline of the

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Univ. The administration of the Libraries and Museums is entrusted to Joint Committees elected two-thirds by the Senatus and one-third by the Court.

The General Council consists of the Chancellor, the members of the Univ. Court, the Profs., such Lecturers and Readers as have held office for a year, and the Graduates of the Univ. It meets twice a year and may hold special meetings at the instance of the Chancellor. Proposed improvements in the arrangements of the Univ. must be submitted to the Council for their consideration.

The General Councils of the four Universities elect three Members of Parliament.

FACULTIES. In all the Univs.—Arts, Science, Divinity, Medicine. In all except St. Andrews—Law. In Edin. only—Music. In Glas. and Aberd.—Engineering (Edin. and St. And. have departments and offer degrees in Engineering, although not a separate Faculty).

TERMS. The academic year is divided into three terms—Oct. to Christmas, Jan. to latter part of March, April to end of June or early July.

ADMISSION (Appendix XX.). The Regulations for admission to a graduating course in a Univ. prescribe a Group Leaving Certificate of the Scottish Education Department showing passes in four subjects, one of these being Mathematics or Dynamics or Physical Science and another a language other than English. Two, at least, must be on the higher standard; and three on the higher standard will be required unless one of the passes is in Mathematics or Latin on the higher standard, or unless both Mathematics and Latin have been passed (either higher or lower standard). Candidates who have not obtained a Leaving Certificate may be admitted on passing a Preliminary Examn. in four subjects under similar restrictions and conditions.

Exemption (pro tanto) is granted in consideration of having passed approved equivalent examns. Candidates from abroad, whose native language is other than English, must pass a Special examn. in English (held in March, Sept., and Oct.; in set works and an oral examn.). Candidates from the British Empire overseas, whose native language is English and who have passed examps, which would admit them to Univs. or Tech. Colleges affiliated to Univs. in their own country, will be exempted. Indian students must have obtained a first-class in the Interm. examp. in Arts or Science of an Indian Univ., and must at some stage of their course have passed in Maths, or Science and English. Similarly the Baccalauréat ès Lettres or ès Sciences will exempt from the Prelim. examn.; Certificates of Maturity or Grades similar to the French Baccalauréat which would entitle the holder to enter upon a regular course of study in the Univs. of his own country will similarly exempt other students from the continent of Europe; and students of the U.S.A. holding certificates which would admit to a regular graduating course in any of the Univs. or Colleges approved by the Assocn. of American Univs. (v. Appendix XXVI.) will be exempt.

N.B. A Certificate submitted as proof of title to admission to Univs. abroad should be accompanied by an authenticated declaration by

a Government Official or Official of an Agency-General, Embassy, Legation, or Consulate of the country to which the applicant belongs, testifying that it has the alleged value. If in a foreign language, certificates should be accompanied by certified English translations.

Argentine Certificates giving admission to the Univ. of Buenos Ayres, the B.A. degree of St. John's, Shanghai, the first-class certificates of the Anglo-Chinese College, Amoy; and, if including Arabic, English, and Maths., the Egyptian Secondary Education Certificate, have been recognized as exempting from the Prelim. examn.

The holder of a Degree obtained otherwise than honoris causa tantum in any British or foreign Univ. is exempt from all Prelim.

examn.

Applications for exemption on the ground of having passed any of the above-mentioned examns., or on other grounds, should be addressed to the Secretary of the Entrance Board, 81 North Street, St. Andrews.

Degrees and courses leading thereto (v. also p. 14). The M.A. (ordinary) course (there is no B.A.) extends over 3 yrs. and includes (for ordinary degree) subjects from 3 of the 4 departments of the Faculty, namely Lang. and Lit., Ment. Philos., Science, Hist. and Law. (There are further restrictions at St. Andrews and Edinburgh.) A candidate for the degree must not only have regularly attended, but also have duly performed the work of the classes in the qualifying courses. The first 2 yrs. may be taken in any of the Scottish Univs. The Senatus may accept attendance given and examns. passed at other Univs. specially recognized for the purpose, if qualifying courses for at least 2 yrs. (St. And., 1 yr.) are attended and the Degree examns. are passed in the Univ. granting the degree. For the purpose of reckoning duration of study an academic yr. is constituted by attendance on at least 1 course (Glas. and St. And., 2 courses) of study in each of the 3 terms. For M.A. (Hons.) 4 yrs.' study is generally required.

The B. Phil. and B. Litt. are conferred only by St. And. A candidate for either of these degrees must take the M.A. either before or along with it. The standard of the Final examn. is that of the M.A. Honours.

The B.Com. conferred by St. And., Aberd., and Edin. may be taken, under conditions as to place of study similar to those for the M.A., after courses covering at least 9 terms.

The Ed.B. involves a 2 yrs. course subsequent to the first 3 yrs. of study for a previous degree, in addition to Professional training or experience as a teacher.

The practical part of the training of students preparing for the *Teaching Profession* is provided by the several Provincial Committees, which likewise recognize attendance at Univ. classes as qualifying in part for their certificates.

The B.Sc. in Pure Science. The course for the ordinary degree covers 3 yrs. (Edinburgh 4 yrs.) and includes from 6 to 9 courses, of which 4 or 5 (St. And., 2) must be taken in the Univ. which is to grant the degree. The other courses may be taken in other Univs. or Institus. approved, or under teachers recognized for this purpose, by the Univ. Court. The degree with Honours requires 4 yrs., and is of a standard not less high than that required for M.A. (Hons.).

The B.Sc. in Applied Science can be obtained as follows: Engineering (St. And., ord. and hons., 3 yrs.; Edin., ordinary and honours, both 3 yrs.; Glas., 4 yrs., the branches in which honours are obtainable being Civ., Mech., Elec., Mining, and Chemical E., and Naval Archit.; Aberd., ordinance in preparation). Mining Engineering (Edin., ordinary and honours, 4 yrs.). Applied Chemistry (Glas., honours, 4 yrs.). Technical Chemistry (Edin., ordinary and honours, 4 yrs.). Architecture (Glas., honours, 4 yrs.). Agric. (Aberd., Edin., and Glas., ordinary, 3 yrs.; honours, 4 yrs.). Forestry (Aberd., ordinary, 3 yrs.; Edin., ordinary, 3 yrs.; honours, 4 yrs.). Pharmacy (Glas., 3 yrs.). Public Health (Glas., 18 months after graduation in Med.). Vet. Sc. (Edin., 4 yrs.).

Higher Degrees in Arts and Science. The D.Sc. in Pure Science, in Engin. (Edin., Glas., St. And.), Pub. Health (Glas.), Mining (Edin.), Tech. Chem. (Edin.), Agric. (Edin.), Forestry (Edin.), and Vet. Sc. (Edin.), and the D.Litt are open to graduates of 5 yrs.' standing. A thesis is required and, except in the case of a graduate of a Scot. Univ. with an Honours degree (St. And., an Honours graduate of the Univ. granting the degree), research under supervision extending over 2 yrs. in the Univ. which is to grant the degree. These degrees are never granted honoris causa.

Divinity. The B.D. examn. of any of the Univs. is open to a graduate in Arts of a Scottish or other approved Univ. or the holder of any Univ. Degree or Diploma recognized as an equivalent by the Univ. Court who has completed his Theol. course (3 yrs.), of which not less than 2 yrs. has been in the Univ. in which he proposes to take the B.D. All the examns, must be passed at the Univ. granting the Degree. The D.D. is honorary. The Gifford Lectures in Natural Theology are open to the general public.

Law. The B.L. course (3 yrs.) is open to students who have passed the Prelim, or its equivalent. Candidates for the degree must produce evidence of a sufficient knowledge of Latin before entering the Class of Civil Law. The LL.B. (3 yrs.) is open to graduates in Arts of a Univ. of the U.K. or any other specially recognized.

Of the B.L. course 1 yr. and of the LL.B. 2 yrs. may be spent in any

specially recognized Univ. or School of Law.

St. And, does not at present provide full courses for or grant these degrees.

The LL.D. is honorary.

Medicine. Three of the requisite 5 yrs. of medical study for the M.B. and Ch.B. may be spent in any Univ. of the U.K. or other Institu. specially recognized for the purpose or under a teacher recognized by the Univ. A candidate who has at any such Univ. completed a course and passed an examn. in Chem., Physics, or Biology qualifying for a degree in Science, Arts, or Med. may be exempted by the Senatus from the corresponding part of the M.B., Ch.B. examns. Aberd., Edin., and St. And. extend this concession to courses and examns. in Anatomy and Physiology qualifying for a degree in Science (St. And.—or Arts or Med.; Edin.—or Med.).

A graduate in Medicine of at least 24 yrs. of age who has, subsequent to graduation, been engaged for at least I yr. in attending the Med. (or Surg.) wards of a hospl., or in scientific work bearing directly on his profession, or in the Naval, Milit., Colonial (Aberd., Edin., Glas.), or, for the M.D. (St. And.—M.D. or Ch.M.), Pub. Health Med. Services, or 2 yrs. in practice not restricted to Surg. (or Med.), and passed the prescribed examn. and submitted a satisfactory thesis, may be admitted M.D. or Ch.M. as the case may be.

Ph.D. See p. 18.

FEES. The Matriculation,  $2\frac{1}{2}$  gs. p.a. at the Univs. of St. And., Glas., and Edin.; 2 gs. p.a. Aberd.; inclusive Tuition fees per annum in Arts are 15 gs., in Science, 25 to 35 gs.; examn. fees for M.A.,  $7\frac{1}{2}$  gs.; B.Sc., 9 gs.; Divinity,  $7\frac{1}{2}$  gs.; Law, 9 gs.; M.B., Ch.B., 33 gs.; graduation, fr. Further information is given in the several Univ. sections.

Research or Special Study may be prosecuted in a Univ. under supervision by persons suitably qualified, whether graduates or not, admitted by the Senatus. Access to and the use of the Univ. laboratories, etc., may be obtained on such conditions as to payment and otherwise as the Univ. Court may determine. The title of Research Fellow may be conferred with or without a stipend on specially distinguished research students.

Appointments Committees have been constituted in all the Univs. to help students to find employment.

SCHOLARSHIPS. Provision for affording Univ. instruction and maintenance to students of small means is probably nowhere more ample than in Scotland. Besides the Carnegie Trust benefactions (v. infra) and the numerous bursaries, etc., awarded by the Universities and the Trustees of unattached educational endowments, all Scottish Education Authorities make provision in their Bursary Schemes for assisting duly qualified persons resident in their areas, and needing such assistance, to attend a University, Training College, Central Institution, etc. The sum so spent by Education Authorities in the financial year 1929–30 was £140,000.

Scholarships, etc., for Graduates. The following are open to graduates of all the Scot. Univs.: (1) Carnegie Scholarships (£150) and Fellowships (£250) and grants in aid of Research. Application forms supplied by the Carnegie Trust, 22 Hanover St., Edinburgh. (2) Ferguson—six of £110 each for 2 yrs. for graduates in Arts. Ferguson Bequest Fund, 94 Bath St., Glasgow. (3) M'Cunn—four of £200 for 1 yr., M'Cunn's Trustees, 160 West George St., for medical research. Glasgow. (4) Shaw Philosophical—£230 for 3 yrs. for graduates in Arts (in the Patronage of Edinburgh Univ.). (5) Black-in Greek, \$196 for 1 vr. for graduates in Arts distinguished in the B.D. examns. (6) Hume Brown—in Scottish History, 190 for 1 yr. for graduates in Arts; managed by the Univ. of Edin. (7) Maclean (Semitic Languages), £175 for 1 yr. for graduates in Arts preparing to enter the Ministry of the Church of Scotland; managed by the Univ. of Glasgow. Crombie (Biblical Criticism), £50 for 1 or 2 yrs. for graduates in Arts with First Class Hons. in Classics; managed by St. Andrews. Shaw Macfie Lang (Science), Endowment of £3000 for Hons. Graduates in Arts or Science; managed by Edinburgh.

CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND. Offices at Merchants' Hall, 22 Hanover Street, Edinburgh. Secretary, Jas. Robb, LL.B.; Treasurer, Jas. Davidson.

The annual income of the Trust is about £125,000, one half of which is devoted to (A) the improvement and expansion of the Universities of Scotland in the faculties of Science, Medicine, History, and Mod. Langs., and extending opportunities for scientific study and research, and Technical or Commercial Univ. education; the other half to (B) assisting Scottish students in the payment of Univ. class fees. Any surplus not required for (B) in any year is to be devoted to (A) (v. App. XXIII. r). Instns.in Scotland recognized by the Executive Committee of the Trustees as preparing students for graduation or as providing technical or commercial edn. of Univ. level are entitled to participate as regards (A) and their students as regards (B). Any surplus not required for (A) or (B) may be devoted to Univ. Extension work.

The Regulations for Assistance in the payment of Class fees provide, inter alia, that applicants should hold the Leaving Certif. of the Scottish Educn. Dept. bearing evidence of such preliminary education as is required by the Univs. for their respective graduating curricula. Where for satisfactory reasons such Leaving Certif. has not been obtained, the Exec. Committee may accept instead what they deem equivalent evidence of attainments, provided that no applicant will be eligible who has to pass any further prelim. examn. before completing his graduating curriculum. Class Fees paid for 1930-31: St. Andrews—£4273 for 324 beneficiaries; Glasgow—£28,813 for 2380; Aberdeen—£8927 for 636; Edinburgh—£14,352 for 1138.

The annual report of the Executive Committee contains reports of experts on the work of beneficiaries under the Research Scheme and lists of papers published by them. Research Fellowships, Scholarships, and Grants awarded for 1930-31: St. Andrews—31, value £4710; Glasgow—38, value £5364; Aberdeen—20, value £2512; Edinburgh

—30, value £3679. Total—119, £16,265.

Under a Sixth Quinquennial Scheme of Distribution for the period from Oct. 1, 1930, to Sept. 30, 1935, there has been allocated a sum of £259,025, distributed thus: St. Andrews centre—£43,000; Glasgow—£79,850; Aberdeen—£57,350; Edinburgh—£78,825.

The Scottish Students' Inter-Universities Conference. At this Conference, which is held annually, and meets in rotation at St. Andrews, Aberdeen, Glasgow, and Edinburgh, the students of the 4 Univs. discuss matters of general interest to them all. The Students' Representative Council of each Univ. sends 4 delegates, one of whom must be a woman. The convener of the International Academic Committee of each Univ. who is the permanent Secretary's assistant in each Univ. (v. p. 7) also attends, and each Univ.'s Unions and Students' magazine are represented. The President and Secretary of the Conference are the President and Secretary of the Students' Representative Council of the Univ. at which the Conference is held. A record of the work of each Conference is printed and distributed to each of the Univs. concerned. The 37th Conference was held at Glasgow in 1931.

# UNIVERSITY OF ABERDEEN

CHANCELLOR—The Right Hon. Baron Meston of Agra and Dunnottar, K.C.S.I., V.D., LL.D.

VICE-CHANCELLOR AND PRINCIPAL—Very Rev. Sir George Adam Smith, M.A., D.D., LL.D., Litt.D., F.B.A.

RECTOR—Sir ARTHUR KEITH, M.D., LL.D., F.R.C.S., F.R.S.

DEANS OF FACULTIES. See under "General Information"—Faculties.

SECRETARY TO THE UNIVERSITY—H. J. BUTCHART, D.S.O., B.L.

CLERK, REGISTRAR OF GENERAL COUNCIL, AND LIBRARIAN—W. D. SIMPSON, M.A., D.Litt.

#### UNIVERSITY COURT

President—The Rector.
The Principal, ex officio.
The Lord Provost of Aberdeen,
ex officio.
J. E. Crombie, M.A., LL.D.
Sir Thomas Jaffrey, Bt., LL.D.
Edward W. Watt, M.A.
George Duncan, M.A.
Gordon John Murray, M.A., D.D.

#### PROFESSORS, LECTURERS, ETC.

Accounting & Business Methods Reid, J., M.A., C.A. Lectr. Grant, John, M.A., C.A. Asst. (Agric. Book-keeping).

Agriculture, v. infra

Anatomy, v. also Embryol. Low, Alexr., M.A., M.D. Reg. Prof. Mitchell, G. A. G., M.B., Ch.B.

Fell, W. I. A., M.B., Ch.B. Asst. Robb, D. B., M.B., Ch.B. Asst. Fowler, A. C., M.D., D.M.R.E.

Part-time Asst. Art, v. Fine Art

Astronomy and Meteorology
Roberts, Owen F. T., M.C., M.A.
Camb. Lectr.

Banking
Cowie, R. H. Pt.-time Lectr.

K.C.V.O., M.A., LL.D., M.D.
WILLIAM RIDDOCH, M.A., LL.D.
Prof. H. M. MACDONALD, O.B.E.,
M.A., F.R.S.
Prof. Sir John Marnoch, C.V.O.,
D.L., M.A., M.B., C.M.
Prof. A. MACKENZIE STUART, K.C.,
M.A. Aberd., LL.B. Edin.

ASHLEY W. MACKINTOSH,

Bio-Chemistry
Beard, E., B.Sc. Edin. Lectr.

Biology, v. Nat. Hist.

Botany

Craib, W. G., M.A. Reg. Prof. Downie, Dorothy G., B.Sc., B.Sc. For. Edin., Ph.D. Chic, Lectr. Fletcher, H. R., B.Sc. Manc.

Asst.

Clamp, Gertrude, B.Sc. Lond.

Asst.

Celtic and Comp. Philology

MacDonald, John, M.A. Reader.

Chemistry, v. also Agric, Findlay, Alexr., Ph.D. Leip., M.A., D.Sc. Prof.

Gray, F. W., M.A., D.Sc. Lectr. Reade, T. H., M.Sc. Birm., M.A. Camb. Lectr, Humphries, J. E., M.Sc. Wales, English B.A. Lond, and Camb., Ph.D. Jack, A. A., M.A. Glas., LL.M. Lond., D.Sc. Lectr. Camb., LL.D. Glas. Chalmers Prof. of E. Lit. Assistants: Strathdee, R. B., Ph.D. Camb., Taylor, W. D., M.A. Glas. Lectr. (E. Lit.). M.A., B.Sc. Abbott, C. C., M.A. Lond., B.A., Martin, A. R., B.Sc., Ph.D. Lond. Ph.D. Camb. Mills, A. K., B.Sc., Ph.D. St. And. Lectr. (E. Lang.). Chemistry, Clinical Murison, W., M.A. Lyall, Alex., M.A., M.D. Lectr. (Part-time Asst.). Classics Fine Art Cameron, A., M.A. Glas., B.A. Ox. Pt.-time Lectrs.: Reg. Prof. (Greek). Rollo, R. Leslie, A.R.I.B.A. (Prin-Wood, Margaret, B.A. Camb., M.A. ciples and Hist. of Archit.). Asst. (Greek). Townend, H., M.A. (Painting). Mackay, Isabel S., B.A. Camb., Swanson, W. (Music). Asst. (Greek). M.A. Laird, Prof. J. (Theory of Art). Souter, A., M.A. Aberd., Ox., Lectr. (Sculpture). Camb., D.D. St. And., D.Litt., F.B.A. Fisheries, Scientific Study of Reg. Prof. (Humanity). Bowman, A., D.Sc. Lectr. Assistants (Latin): Laing, K. M., B.A. Camb., M.A. Forestry, v. also Engin. Getty, R. J., B.A. Belf., Camb. Borthwick, A. W., O.B.E., D.Sc. Addison, C. J. S., M.A. Edin. St. And. Middleton, G., M.A. Camb., D.Litt. Fraser, G. K., M.A., B.Sc., B.Sc. (Part-time). (For.) Lectr. in Soils. Laing, E. V., M.A., B.Sc. (For.), Divinity, v. Theol. D.Sc. Economics, v. Pol. Econ. Asst. Laidlaw, W. B. R., B.Sc. (For.) Education Edin. Asst. Walker, Norman T., M.A., Ed.B., Lectr. Ph.D. Glas. French Morton, D. M., M.A., B.Sc. Glas. Shears, F. S., B.A., L. ès L., Asst. D. de l'Univ. Paris Prof. Embryology Casati, E., L. ès L. Lyons Lectr. Purser, G. L., M.A. Camb. Lectr. Linscott, R. A., M.A. Ox. Asst. Engineering []ackson Prof. Chrétien, P., L. ès L. Bordeaux Blackadder, W., D.Sc. Edin. Asst. Stewart, F. R., B.Sc. (Eng.) Glas. Lentz, E. E. Part-time Asst. Asst. (Agric. E.). Cruickshank, A. Asst. Geography Chisholm, J. A. Asst. McFarlane, J., M.A. Edin., Camb., Orkney, J. C., B.Sc. (Eng.) Glas. M.Com. Manc. Reader. Lectr. (Elec. E.). Bremner, A., M.A., D.Sc. Edin. Edmond, A. D., B.Sc. (Eng.) Lond. Lectr. (Mech. E.). Geology Kilgour Prof. Grassie, J. C., B.Sc. (Eng.) Glas. Gibb, A. W., M.A., D.Sc. Asst. (Forest E.). Smith, J. E., B.Sc. Asst.

German	Jackson, W. W., M.Sc. Manc.
Yates, D., M.A. Birm., D.Phil.	Asst.
Bresl. Reader.	Goodall, J., M.A. Asst.
Oakey, A., B.A. Birm. Asst.	Physiology [Reg. Prof.
Witte, W., Dr. der I of. Drest.	Physiology [Reg. Prof. Macleod, J. J. R., D.Sc. Tor.,
Asst.	LL.D., M.B., Ch.B., F.R.S.
Hebrew and Semitic Langs. Kennedy, Rev. A. C., B.D.	Peterson, J. M., B.Sc., B.Sc. (Agr.).
Reg. Prof.	(Expl. P.) Lectr. Magee, H. E., B.Sc., M.B., B.Ch.
History, v. also Law, Theol.	Belf., D.Sc., M.B., B.Cli.
Black, J. B., M.A. Glas. and Ox.	(Nutrit. Physiol.) Lectr.
Burnett-Fletcher Prof.	Bell, D. J., B.Sc. Glas. Asst.
Henderson, J. M., M.A. Edin.	Cleghorn, R. A., M.D. Tor. Asst.
Lectr. (Brit. Hist.).	Orr, J. B., D.S.O., M.C., M.A.,
Matheson, K. C. C., M.A. Asst.	D.Sc., M.D. Glas.
Law, v. infra	Research Lectr. (P. of Nutrition).
Logic	Political Economy
Ferguson, A. S., M.A. St. And.	Gray, A., M.A. Edin. Jaffrey Prof.
and Ox. Reg. Prof.	Macdonald, Annie, M.A. (Lectr. in
Macnabb, D. G. C., B.A. Asst.	Pub. Finance) Asst. Hamilton, H., M.A., D.Litt. Glas.
Mathematics	(Econ. Hist.) Lectr.
Macdonald, H. M., O.B.E., M.A.,	Psychology, Comparative
F.R.S. Prof.	Knight, A. R., M.A. Sydn., Camb.
Goodwillie, J., M.A. Camb. and	Anderson Lectr.
Edin., B.Sc. Edin. Lectr. & Asst.	Spanish
Lawrence, J. T., B.A. Camb., M.A.	Davidson, C., M.A. Lectr.
Asst.	Statistical Methods
Medicine, v. infra	Tocher, J. F., D.Sc. Croll Lectr.
•	Theology
Meteorology, v. Astron.	Baird, A. C., M.A., D.D., B.Sc.
Natural History	Glas. (Bibl. Crit.) Reg. Prof.
Ritchie, J., M.A., D.Sc. Reg. Prof.	Henderson, G. D., M.A., B.D.,
Neill, R. M., M.C., M.A. Glas.	D.Litt. Glas. (Church Hist.)
Lectr. (Zool.). Dean, Laura M. I., B.Sc.	Reg. Prof.
Asst. (Zool.).	Thomson, G. T., B.A. Ox., M.A.,
Philology, Compar., v. Celtic	B.D. Edin. (Systematic T.) Prof.
Philosophy, Moral	Otto, Emer. Prof. Rudolf, D.D.
Laird, John, M.A. Edin., B.A.	Marb. Gifford Lectr.
Camb. Reg. Prof.	Zoology, v. For., Nat. Hist.
Philosophy, Nat. [Prof.	32 .
Carroll, J. A., M.A., Ph.D. Camb.	Agriculture
Geddes, A. E. M., O.B.E., M.A.,	•
D.Sc. Lectr.	(v. also Engin. and <i>infra</i> North of

Griffith, H. D., B.A. Camb. Lectr. White, Paul, B.A., Ph.D. Camb.

Asst.

(v. also Engin. and infra North of Scotland Coll. of Agr.)

Hendrick, J., B.Sc. Lond. Strathcona-Fordyce Prof.

Lectr.

Medicine

(for subjects of the first 2 yrs.—

Profeit, W. J., M.A., B.Sc. (Agr.)

Masson, R. P., M.A., LL.B. Lectr.

Donald, G., B.Sc. (Agr.) Asst. Anat., etc., v. supra) Findlay, W. M. (Seed Testing) Bacteriology Asst. Cruickshank, J., M.D. Glas. Prof. Agric. Botany Leiper, E. Y. R., M.A., M.B., Ch.B. Clouston, D., M.A., B.Sc. (Agr.) Asst. Edin. Lectr. Forensic Med. Agric, Chemistry [Asst. Prof. Hill, Alfred, B.Sc., B.Sc. (Agr.) Richards, R., M.A., M.D., Moore, W., B.Sc., B.Sc. (Agr.) · F.R.C.S.E. Lectr. Asst. Williamson, G., M.A., M.B. (Med. Agricultural Law Ethics) Lectr. Wilson, N. J., M.A., LL.B. Asst. Materia Medica Agr. Zoology Campbell, D., M.C., M.A., B.Sc., Robertson, D., B.Sc. (Agr.), Ph.D. M.D. Glas. Reg. Prof. Lectr. Morgan, T. N., M.B., Ch.B. Asst. Hendry, A. W., M.D. Veterinary Hygiene and Agr. Pt.-time Asst. Bacteriology Medicine Grant, J. C., M.R.C.V.S. Lectr. Davidson, L. S. P., B.A. Camb., M.D. Edin., F.R.C.P.E. Reg. Prof. Law Johnston, J., M.B., Ch.B. (Anæs.) Stuart, A. M., K.C., LL.B. Edin., Lectr. Mackenzie, J. R., M.D. (Anæs.) Prof. M.A. Shewan, F. G. D., M.A., LL.B. Lectr. Fraser, T., C.B.E., D.S.O., M.A., Pt.-time Asst. Wood, D. M., M.A., LL.B. Tutor. M.B., Ch.B. (Clin.) Lectr. Croll, W. F., M.A., M.D. (Clin.) Constit. L. and Hist. Lectr. Williamson, R. M., LL.B. Edin., Emslie, A. G., M.B., Ch.B. Asst. Lectr. M.A. McMichael, J., M.B., Ch.B. Edin., M.R.C.P. Pt.-time Asst. Conveyancing Craig, J., M.B., Ch.B. Morrison, A. C., O.B.E., M.A. St. Part-time Asst. Prof. And., LL.B. Glas. [Reg. Prof. Midwifery McKerron, R. G., M.A., M.D. Internat. L., Public and Private Semple, R., O.B.E., M.D. Duncan, G., M.A. Lectr. Part-time Asst. Mercantile Law Ophthalmology Esslemont, W. D., M.A., B.L. Souter, W. C., D.O. Ox., M.D. Lectr. Procedure and Evidence Galloway, A. R., O.B.E., M.A. Edwards, J. H., M.A., LL.B. M.B., C.M. Lectr. Clark Lectr. Pathology [Wilson Prof. Roman Law

Shennan, T., M.D. Edin.

Gray, J., M.D.

(Morbid Anat.) Lectr.
Cran, B. S., M.D.
Evans, W. G., M.B., B.S. Lond.,
M.R.C.S., L.R.C.P. (Malignant Dis.)
Georgina McRobert Lectr.
and Radium Officer.

Public Health

Rae, H. J., M.C., M.A., M.B., Ch.B., D.P.H. Pt.-time Lectr, Berry, D. W., M.D., D.P.H. Lectr. Merewether, Edward R. A., M.D. Durh. Lectr. Peterkin, H., M.A., M.B., Ch.B. (Diseases of the Ear, Nose, and Throat) Lectr. Brown, J., M.B., Ch.B., D.P.H. (Vaccination) Lectr. Edin. Brown, R. D., M.D. F.R.C.P.E. (Mental Diseases) Lectr. Anderson, T. E., M.D. (Diseases

D.P.H. (Ven. Dis.)
Pt.-time Lectr.

Radiology and Electro-Therapeutics

Connon, M., M.D., D.P.H.

Pt.-time Lectr.

Surgery
Marnoch, Sir J., K.C.V.O., D.L.,
M.A., M.B., C.M. Reg. Prof.
Anderson, William, O.B.E., M.B.,
Ch.B., F.R.C.S. Asst.
Bruce, G. G., M.B., Ch.B., F.R.C.S.

Smith, F. K., M.A., M.B., Ch.B. (Clin.) Lectr.

Colt, G. H., M.A., M.B., B.Ch. Camb., F.R.C.S. (Clin.) Lectr. Mitchell, A., M.A., Ch.B. (Diseases of Children) Lectr.

Brown, W., O.B.E., M.B., Ch.B. Edin., M.R.C.P.E. Lectr.

Tropical Medicine

Williamson, G. A., D.T.M. Liv., M.A., M.D. Lectr.

Tuberculosis

Banks, G. S., M.B., Ch.B., D.P.H. Edin. Lectr.

Director of Physical Training Brocks, Capt. A. W., M.C., M.B.E. Campbell, Mrs. E. M. Asst.

#### ASSOCIATED COLLEGES

Bowie, F. J. T., M.B., Ch.B.,

of the Skin) Pt.-time Lectr.

North of Scotland College of Agriculture, v. also App. XXIV. p. 792. Director of Studies and Research—J. Hendrick, B.Sc., F.I.C., Strathcona-Fordyce Prof. of Agric. and Lectr. in Agr. Chem. The Univ. Lectrs. and J. Anderson, M.A., B.Sc., Ph.D., Bee-keeping; G. E. Greenhowe, Hortic.; G. A. Williamson, M.A., M.D., D.P.H., Trop. Hyg.; I Advisory Officer, I Agr. Economist, II Assts., 4 Demrs., I4 County Organizers.

ROBERT GORDON TECHNICAL COLLEGES.

# GENERAL INFORMATION, v. also pp. 289 ff.

The "University and King's College of Aberdeen," founded under a Papal Bull in 1494, and the "Marischal College," founded in 1593 by George Keith, Earl Marischal, were reconstituted in 1860 as "The University of Aberdeen." Certain of the original buildings remain, notably the Chapel (A.D. 1500).

The Library, founded in 1500, has 250,000 vols. and 200 Incunabula, some unique. It is especially rich in Celtic literature, and books bearing on the history, topography, and antiquities of the Scottish Highlands, and Classical Archæology. Annual budget about £3500. Museums: Anthropological (illust. cat. 1s.), Surgical (2500 specimens and 600 instruments), etc.

Besides the usual LABORATORIES there is the Rowett Institute of Research in Animal Nutrition near Bankhead, with depts of Physiol., Bio-Chem., Bacteriol. and Pathol., and attached Animal Husbandry section for practical experiments in feeding, etc. (v. App. XXIV.). It is under the management of a joint committee of the Univ. and the N. of Scotland College of Agric. Hospitals available for clinics: Infirmary, 366 beds; Children's, 132; Fever, 350; Mental Hospital, 900; Maternity Hospital, 32; Ophthalmic Institution, 5.

FACULTIES. Arts, Science, Divinity, Law, Medicine. Deans: Profs. Gray, Borthwick, Henderson, Stuart, Macleod.

Departments: Commerce, Education.

Admission. v. Appendix XX.

Degrees, etc., v. also pp. 291 ff. Diplomas are conferred in Public Health (D.P.H.) and in Fine Art (History and Theory). A Cert. in Fine Art and a Cert. in Educ. are also granted.

Certain Univs. have been recognized by the Univ. Court pro tanto as institutions in which 3 of the requisite 5 yrs. of medical study may be taken, provided the prescribed conditions are fulfilled. Each application for exemption must be submitted to and approved by the Univ. Court.

FEES (v. Carnegie Trust, p. 294). Inclusive fees for tuition: B.D., 40 gs.; LL.B., 40 gs. (28 gs. for a M.A. of the Univ.); B.L., 30 gs.; M.A. and B.Sc. taken together, 112½ gs.; M.A. (Hons.) and B.Sc. taken together, 127½ gs.; M.A. and B.Com., 75 gs.; B.Sc. and B.Com., 112½ gs.; M.B., Ch.B., 126 gs.; M.A., M.B., Ch.B., 156 gs.; M.A. (Hons.), M.B., Ch.B., 156 gs.; B.Sc., M.B., and Ch.B., 168 gs.; M.A., B.Sc., M.B., and Ch.B., 202 gs.; M.A. (Hons.), 60 gs.; B.Com., 45 gs.; B.Sc. (Pure Science, Agriculture, Forestry, and Engineering), 90 gs.; B.Sc. (Hons.), 100 gs. The total cost of the whole medical curriculum, including hospital fees, classes, matricn., and degree fees, is usually about £242. The degree fees for the Doctorates are from 10 to 20 gs. The class and examn. fees for the D.P.H. are 36 gs.; for the Dipl. in Hist. and Theory of Fine Art, and for the Cert. in Fine Art, 8 gs. and 15 gs. respectively.

Scholarships, etc., for graduates, about 25; aggregate annual value about £1600. Travelling Scholarships: Anderson, for medical graduates, about £200 p.a.; Kilgour, £250 for graduates in Natural Science or Natural History; Robbie, £100 p.a. in Maths., Nat. Philos., and Chem.; John Stephen, £90 p.a. in Econ. for 2 yrs.; Yuill, £150 for 1 yr., renewable in Indust. and Agr. Chem. Travelling Fellowship: Wilson, for archæological research in the Near East, £300 p.a. for 2 yrs. Particulars obtainable from Sec. to Wilson Trustees, A. Martineau, Golden Square, Aberdeen; George Thompson, in Med., for 2 yrs. (1st yr. abroad).

RESIDENCE. List of lodgings kept by Students' Repve. Council.

APPOINTMENTS COMMITTEE. There is also a Special Committee which advises students as to preparation for Indian and Home Civil Services, and a Special Sub-Committee which deals with appointments for women as Inspectors of Factories, Secretaries, etc. All communications to be addressed to *The Convener*.

Physical Welfare of Students. There is a Dir. of Phys. Tg., with a woman asst. for women students.

Publications. Calendar (Sept.), 4s. 6d.; Univ. Review, 7s. 6d. p.a. (3 issues); Students' Handbook (Nov.), 1s.; Alma Mater (organ of S.R.C.); Univ. Libr. Bulletin, 2s. 6d. p.a. (2 issues).

#### THE YEAR 1930-31

BENEFACTIONS. Dr. Henry Cook, balance of bequest for Marischal College, £5279:9:7; Dr. John Scott Riddell, bequest to assist Final Year Med. Student, £140; Miss Isabella Taylor, bequest for books, £100; Miss Isabel Kerr Gordon and Miss Jane Gordon, bequest for general purposes, £6000; Arts Class of 1866-70, to purchase the book, A Silver Watch Bell, by Thomas Tymme, £6; Prof. Cuthbert Hamilton Turner, bequest for books, £9:9s.; The Carnegie Trust: Library (Books), £1000; Feu-duty, Powis Lodge, Old Aberdeen, £156:8:10; towards new Med. buildings, £2025; towards salaries of Carnegie Teaching Fellows, £1243:15s.

Honorary Degrees. D.D.—James B. Burnett, Francis Davidson, Frederick Llewellyn Deane, John Anderson Graham, H. Erskine Hill, Joseph Johnston, Cosmo Gordon Lang, William Stephen. LL.D.—George H. Bennett, The Earl of Caithness, Dugald M'Coig Cowan, Baron Elphinstone, Sir Johnston Forbes-Robertson, Edward Morgan Forster, John Garstang, Étienne Gilson, Francis James Grant, Sir Leonard Erskine Hill, Sir Thomas Henry Holland, Sir James Colquhoun Irvine, Sir John Lamb, Sir Nevil Macready, Charles Robertshaw Marshall, James Reid Rust, Charles William Sleigh, Sir Frank Edward Smith, Sir Findlater Stewart, Baron Stonehaven, Charles Sanford Terry, Sir J. Arthur Thomson, James Cromar Watt.

New Posts. Lectrs.: Morbid Anat.; Diseases of the Skin; Venereal Diseases. Assts.: Anat. (Pt.-time); Med.

DEATHS. John F. Christie, Lectr. on Dis. of the Skin and Vener. Diseases. Alexander Blacklaw, Lectr. on Procedure and Evidence.

RESIGNATIONS. John Harrower, Prof. of Greek; R. D. Lockhart, Lectr. on Anat.; John R. Levack, Lectr. on Radiol. and Electro-Therapeutics.

STUDENTS. Total, 1314.

Degrees, etc. M.A., 175; Ph.D., 8; D.Sc., 1; B.Sc., 28; B.Sc. (Agr.), 5; B.Sc. (For.), 2; B.Sc. (Eng.), 4; B.Com., 8; B.D., 2; B.L., 3; LL.B., 5; M.D., 7; M.B., Ch.B., 54; Diploma in Agriculture, 1; Diploma in Public Health, 8.

#### UNIVERSITY OF EDINBURGH

CHANCELLOR—Sir James Matthew Barrie, Bart., O.M., M.A., LL.D. VICE-CHANCELLOR AND PRINCIPAL—Sir THOMAS H. HOLLAND, K.C.S.I., K.C.I.E., D.Sc., LL.D., F.R.S.

RECTOR—Rt. Hon. WINSTON CHURCHILL, C.H., LL.D., M.P. (elected 1929).

DEANS OF FACULTIES. See under "General Information"—Faculties. SECRETARY TO THE UNIVERSITY-W. A. FLEMING, M.A., LL.B., J.P., Advocate.

# UNIVERSITY COURT

PRESIDENT—THE RECTOR, ex officio. J. B. CLARK, M.A., LL.D.

THE PRINCIPAL, ex officio.

The Rt. Hon. THE LORD PROVOST OF EDINBURGH, ex officio.

The Hon. LORD BLACKBURN.

The Rt. Hon. LORD SALVESEN.

Councillor J. D. PHILIPS SMITH.

J. ROBERTON CHRISTIE, O.B.E., K.C.

Sir Norman Walker, M.D., LL.D.

# PROFESSORS, LECTURERS, ETC.

Accounting and Business Method Annan, W., M.A., C.A. Prof. Keddie, C., C.A. Asst.

Actuarial Science Aitken, A. C., D.Sc. Lectr. Reid, A. R., M.A., F.F.A., F.I.A. Lectr.

Haynes, A. T., F.I.A. Agriculture, v. infra

Anatomy

Brash, J. C., M.A., B.Sc., M.D.

Prof. Jamieson, E. B., M.D. Lectr. Wood, W. Q., M.B. Lectr.

Jardine, F. E., M.B. (A. and Applied A.) Lectr. ALEXANDER MILES, M.D., LL.D.

Prof. Sir T. Hudson Beare, B.A., B.Sc., M.I.C.E.

Prof. H. J. C. GRIERSON, M.A., D.Litt., LL.D., F.B.A.

Prof. Sir Robert W. Philip, M.D., LL.D.

Prof. WILLIAM A. CURTIS, M.A., D.Litt., D.D.

Craig, R. C., M.B. Asst. Stirling, R. I., M.B. Asst.

Anatomy, Comparative Bradley, O. C., M.D., D.Sc. Lectr.

Grahame, Tom, M.R.C.V.S. Asst. Anatomy, Morbid

Davidson, James, M.B. Lectr. Anthropology and Prehistoric

Archæol. Childe, Prof. V. G. Munro Lectr.

Arabic

Bell, Richard, M.A., D.D. Lectr.

Archæology, Prehistoric Childe, V. G., B.A. Syd., B.Litt. Ox. Abercromby Prof.

Lectr.

Art (Fine Art) [Prof. Read, H., D.S.O., M.C., M.A.	Chemistry in relation to Medicine Barger, G., M.A. Camb., D.Sc.,
Astronomy Sampson, R. A., M. A. Camb., D. Sc.,	F.R.S. Prof. Lecturers:
LL.D., F.R.S. Reg. Prof.  Bacteriology	Stewart, C. P., M.Sc. Durh., Ph.D. Stedman, E., B.Sc., Ph.D.
Mackie, T. J., M.D. Irvine Prof. Alston, J. M., M.B. Lectr. Gibson, H. J., M.B., D.P.H.	Stedman, Ellen (Mrs.), M.Sc. Macartney, W. A., Ph.D. Asst. Gaddie, R., B.Sc. Asst.
Lectr. Beattie, C. P., M.A., M.B., D.P.H. Asst.	Chemistry, Technical Bain, David, D.Sc. Lectr.
Haddow, A., M.B. Asst.	Classics, Greek [Prof.
Banking [Bruce Lectr. M'Neil, A., M.A., S.S.C.	Calder, W. M., M.A. Ox., D.Litt. Forbes, P. B. R., M.A. Camb.
Biology, v. Nat. Hist.	Luckhurst, K. W., B.A. Lectr.
Botany, v. also Forestry	Classics: Latin
Smith, Wm. Wright, M.A., F.R.S. Reg. Prof.	Richmond, O. L., M.A. Camb.
Wilson, M., D.Sc. (Mycol. and	Prof. Campbell, D. J., M.A. Lectr.
Bacteriol.) Reader. Smith, J. L. S., M.A., B.Sc.	Potter, K. R., M.A. Lectr.
(Forest B.) Lectr.	Smith, W. K., B.A. Lectr.
Graham, R. J. D., D.Sc. (Botany) Lectr.	Nicolson, Miss C. A., M.A. Asst. Andrew, Eliz. C., M.A. Asst.
Nelson, A., B.Sc., Ph.D. (Plant	Commerce, and Organization of
Physiol.) Lectr. Campbell, A. H., B.Sc. Asst.	Industry, v. also Acc., Banking Oliver, W., B.Sc. Prof.
Celtic Languages, etc. Watson, W. J., M.A. Ox., D.Litt., LL.D. Prof.	Commercial and Polit. Econ. and Merc. Law, v. also Law Ogilvie, F. W., M.A. Ox. Prof.
Chemistry	Lecturers:
Kendall, James P., M.A., D.Sc., F.R.S. Prof.	Birnie, A., M.A. (Econ. Hist.) Rankin, Mary T., M.A., D.Phil.
Mackenzie, J. E., D.Sc., Ph.D. Reader.	Joynt, Thomas A., M.A.
Kay, S. A., D.Sc. Lectr.	Isles, K. S., B.A., B.Com. Aitken, A. C., D.Sc. (Statistics and
Rule, H. G., Ph.D., D.Sc. Lectr. Butler, J. A. V., D.Sc. Lectr.	Math. Econ.)
Bolam, T. R., D.Sc. Lectr.	Bates, S. Asst.
Ludlam, E. B., M.A., D.Sc. Lectr.	Cytology, v. Nat. Hist.
Shoesmith, John B., D.Sc. Lectr. Miller, Miss C. C., B.Sc., Ph.D.	Divinity
Lectr.	Paterson, Very Rev. W. P., LL.D.
Campbell, N., B.Sc., Ph.D. Lectr.	Penn., M.A., B.D., D.D.
Bolam, Mary R. (Mrs.), B.Sc.,	Prof.
Ph.D. Asst.	Robertson, Prof. Edward
14 other Assts.	Gunning Lectr.

D.Litt., D.D.	(Strength of Mats.).
Reg. Prof. of Biblical	Cowan, LtCol. S. Hunter, D.S.O.
Criticism & Bib. Antiq.	(Forest Engin.).
Burleigh, J. H. S., M.A., B.Litt.,	Stewart, David S., B.Sc., Ph.D.
B.D. (Eccl. Hist.) Prof.	Patterson, C.
Martin, Rev. Principal A., D.D.,	Davidson, M. (Heat Engines).
LL.D. Lectr.	
Manson, Rev. Prof. W., B.D.	T T T T T T T T T T T T T T T T T T T
Lectr.	Low, J. M., B.Sc. Asst.
Simpson, Prof. J. Y., D.Sc. Lectr.	English Lit. and Rhetoric
Mackintosh, Rev. Prof. H. R.,	Grierson, H. J. C., M.A. Aberd.,
	B.A. Ox., D.Litt., LL.D. St.
D.Phil., D.D. Lectr. Watt, Rev. Prof. H., B.D. Lectr.	And. Reg. Prof.
	Kitchin, G., M.A., D.Litt. Lectr.
Welch, Rev. Prof. A. C., D.D.,	(E. Lang.) Lectr.
Th.D. Lectr.	Bullough, G., M.A. Lectr.
Perry, Rev. Dean W., D.D. Lectr.	Clark, A. M., M.A. Lectr.
Hughes, Rev. P'pal. G. H., D.D.,	Wood, H., M.A. Asst.
D.Litt. Lectr.	Ramsay, Mary P., M.A. Asst.
Lamont, Rev. Prof. D., D.D.	Cattanach, Rev. J. H. Asst.
Lectr.	Smith, H. K. Asst.
Miller, Rev. J. H., C.B.E., D.D.	
Lectr.	Entomology, v. Agric.
Thornton, C. T., M.A., B.D. Lectr.	Forestry, v. also Agric., Bot.,
Morrison, Rev. J., D.D. Asst.	Engin.
Mathers, Rev. J., O.B.E., B.D.	Stebbing, E. P., M.A. Prof.
Asst.	Pike, J. L., M.A., B.Sc. Lectr.
Economics, v. Comm.	Fergusson, D. C., B.Sc. Lectr.
Economics, Social	
Milnes, Nora, B.Sc. Lectr.	French and Rom. Philol.
	Moore, J. M., M.A. Prof.
	Lafourcade, G. Lectr.
Thomson, Godfrey H., D.Sc.,	Burns, Mary, M.A., D. de l'U.
Ph.D. (Dir. of Studies of the	Paris Lectr.
Provincial Training College)	Poulet, G. Lectr.
Milne, A., D.Sc. Lectr.	5 Assts.
Mowat, G., M.A., B.Ed. Lectr.	Geography [Prof.
Drummond, Margaret Lectr.	Ogilvie, Alan G., M.A., B.Sc. Ox.
Assistants:	Linton, D. L., B.Sc. Lectr.
Bickersteth, Marguerite E., Ph.D.	Geddes, A., D. ès L. Lectr.
Samuel, Eliz., M.A., B.Ed.	Goology
Clark, Mary J., M.A.	Geology
Borland, Miss J., M.A.	Jehu, T. J., M.A., M.D. Reg. Prof.
Engineering	Campbell, R., M.A., D.Sc. (Petro-
Beare, Sir Thos. Hudson, B.A.,	logy) Reader.
B.Sc. Adel. Reg. Prof.	Finlay, T. M., M.A., B.Sc.
	(Palæont.) Lectr.
Lecturers:	Craig, Robert, M.A., B.Sc. (Econ.
Todd, J. B., B.Sc., Ph.D.,	Geol.) Lectr.
(Surv. & Hydraulics).	Cockburn, A., Ph.D. Asst.

German and Teutonic Philol. Aitken, A. C., D.Sc. Lectr. Bruford, W. H., M.A. Camb. Prof. Ruse, H. S., B.A. Lectr. Eggeling, H. F., M.A. Lectr. McCrea, W. H., B.A., Ph.D. Barker, Marie L., Ph.D. Camb. Lectr. Research Fellow and Lectr. Ince, E. L., D.Sc. Lectr. Stumpfl, R., Ph.D. Asst. Mathematics, Applied Hebrew and Semitic Langs. Schlapp, R., Ph.D. Camb. Lectr. Kennedy, Rev. A. R. S., M.A., D.D. Glas. and St. And. Prof. Medicine and Surgery, v. infra Cameron, Rev. D., B.D. Asst. Mining Histology, v. Physiol. Briggs, H., Ph.D., D.Sc. Hood Prof. History, v. also Comm., Div. MusicWilliams, A. F. Basil, M.A. Prof. Tovey, D. F., B.A., D.Mus. Ox., Heatley, D. P., M.A. (Political Mus.M. Reid Prof. Science) Reader. Shirlaw, M., Mus.Doc. Lectr. Balfour-Melville, E. W. M., M.A. Grierson, Mary, Mus.Doc. Lectr. Lectr. Ludwig, Margt., Mus.Bac. Rothwell, H., Ph.D. Camb. (Medieval and Gen. Euro-Natural History and Zoology · pean) Lectr. Ashworth, J. H., D.Sc., F.R.S. Horn, D. B., M.A., D.Litt. Lectr. Prof. Simpson, M., M.A. O'Donoghue, C. H., D.Sc. Reader. History, Ancient (Gk. & Roman) Lecturers: Giles, A. F., M.A. Edin. and Ox. Cameron, T. W. M., M.A., D.Sc., Reader. M.R.C.V.S. (Helminthology) History, Ancient, and Palæog. Craig-Bennett, A. L., M.A., Ph.D. Hannay, R. K., M.A. Glas., LL.D. Hobson, A. D., M.A. (Cytology St. And. and Ox. Prof. and Exp. Zool.). Asst. Lemon, Miss E., M.A. Cameron, A. E., M.A., D.Sc. History (Constitu. of the B. Emp., Simpson, J. Y., D.Sc. (Evolution). etc.) Gresson, R. A. R., B.Sc., Ph.D. Keith, Prof. A. B. Lectr. (Cytol.). Gray, P., B.Sc., Ph.D. History, Const. and Const. Law Embryol.). Dykes, D. O., LL.B. Prof. Nicol, Edith A. T., Ph.D. Asst. Philip, J. R., M.A., LL.B. Asst. Palæontology, v. Geol. Italian Purves, J., M.A. Lectr. Petrology, v. Geol. Rankin, R. A. S. Asst. Philology, v. French, Ger., Sansk. Law, v. infra Philosophy Logic and Metaphysics, v. Philos. Smith, N. Kemp, M.A., D.Phil. Mathematics St. And., LL.D. (Ancient P.) Reader. Whittaker, E. T., M.A. Camb., Sc.D., LL.D., F.R.S. Maclennan, R. D., M.A. Lectr. Prof. Horsburgh, E. M., M.A., D.Sc. MacIver, A. N., B.A. Asst. Reader. Stedman, R. E., M.A., Ph.D. Gibb, D., M.A., B.Sc. Lectr. Asst.

Philosophy, Moral, v. also Psych. Taylor, A. E., M.A., D.Litt., LL.D. Prof. Barker, H., M.A. Lectr. Cohen, E., B.A. Asst. Carmichael, D. M. Asst.  Philosophy, Natural Barkla, C. G., M.A. Camb., D.Sc. Liv., F.R.S., Nobel Laureate.	Rhetoric, v. English Sanskrit and Comp. Philol. Keith, A. Berriedale, M.A., D.Litt., D.C.L. Reg. Prof. Semitic Langs., v. Hebrew Spanish Walton, L. B., M.A., B.Litt. Ox. Lectr. Wilson, John, M.A. Asst.
Prof. Darwin, C. G., M.A. Camb., F.R.S. Tait Prof. Carse, G. A., M.A., D.Sc. Reader. Milne, J. R., D.Sc. Lectr. Childs, C. B., Ph.D. Lectr. Paton, J., M.A., B.Sc. Lectr. Dymond, E. G., M.A. Camb.	Meek, J. M., M.A. Asst.  Statistics, v. Comm.  Theology, v. Divinity  Theology, Natural  Bevan, E. R., D.Litt., LL.D.  Gifford Lectr.  Zoology, v. Nat. Hist.
Lectr. (Physics). Kay, J. S., M.A. Asst.	Agriculture
Honeyman, A., M.A. Asst.	(v. also Bot., Forestry, Law)
Ross, Marion A. S., M.A. Asst. Carmichael, H., B.Sc. Asst.  Physiology Schäfer, Sir E. A. Sharpey, LL.D., F.R.S. Prof. Cameron, May L., M.A., B.Sc., M.B. (Histol.) Lectr. Bruce, A. N., M.D., D.Sc. (P. of Nervous System) Lectr. Eggleton, P., M.Sc., D.Sc. Lectr. Bain, W. A., B.Sc. Lectr. Bain, W. A., B.Sc. Lectr. Kennedy, W. P., B.Sc., M.B., Ph.D. Asst. Cameron, J. D. S., M.B. Asst. 2 Technical Assts.	Agriculture and Rural Economy Shearer, E., M.A., B.Sc. Prof. More, J. A., B.Sc. Lectr. Gordon, J. Evans, B.Sc. Lectr.  Agric. and Forest Entomol. Williams, C. B., M.A. Lectr.  Animal Genetics [Prof. Crew, F. A. E., M.D., Ph.D., D.Sc. Wiesner, B. P., Ph.D. Lectr. Greenwood, A. W., Ph.D. Lectr. Smith, A. D. B., M.A., B.Sc. Lectr. Miller, W. C., M.R.C.V.S. Lectr. Calder, D. A. Asst.
Pol. Econ., v. Comm., Hist.	Law
Psychology Drever, J., M.A., B.Sc. Lond., D.Phil. Prof. Collins, Mary, M.A., B.Ed., Ph.D. Lectr. Fairbairn, W. R. D., M.A., M.D. Lectr. Sutherland, J. D., B.Ed., B.Sc. Asst. Seth, G., M.A., B.Ed. Asst.	Administrative Law Wood, P. F., C.B., K.C., M.A., LL.B., M.A. Ox. Reader. Agricultural Law Cowan, John, LL.B., K.C. Lectr. Civil Law Mackintosh, J., K.C., M.A. St. And., B.A. Ox., LL.D. Prof. Thomson, G. R., B.A., LL.B. Asst.

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Constitutional Law, v. Hist.	Eye, Diseases of the, v. infra Clin. Teaching Staff
Conveyancing Wedderburn, E. M., LL.B., D.Sc.,	Forensic Med. [Reg. Prof. Smith, S. A., M.D., Ch.M.
W.S. Prof. Young, A. W., LL.B., W.S. Asst.	Davidson, J., M.B. Asst. Mason, V., M.B. Asst.
English Law Gibb, A. D., LL.B. Lectr.	Gynæcology, Syst. and Clin., v. infra Clin. Teaching Staff
Evidence and Procedure Eaton, H. W. Lectr.	History of Med. [Lectr. Comrie, J. D., M.A., B.Sc., M.D.
Industrial Law Taylor, J. O., M.A., LL.B. Lectr. International Private Law	Infective Fevers James, A., M.D. Lectr. Benson, W. T., M.D. Lectr.
Garrett, Wm., M.A., LL.B. Reader.	Laryng., Ot., and Rhinology, v. infra Clin. Teaching Staff
Mercantile Law, v. also Comm. Lillie, J. A., LL.B. Lectr. Taylor, T. M., LL.B. Asst.  Public Law Wilson, Wm., M.A., LL.B.  Reg. Prof. Mackinnon, J. A. R., M.A., LL.B.	Materia Medica [Prof. Clark, A. J., B.A., M.D., F.R.C.P. Scott, C. M., M.B. Lectr. Percival, G. H., M.B. Asst. Dick, I. A. G. L., M.B. Asst. Bogue, J. Y., M.B. Asst. I Tech. Asst.
Lectr. and Asst.  Scots Law [Prof. Henderson, R. C., K.C., LL.B. Milne, C. B., M.A., LL.B. Lectr. and Asst.	Medicine, v. also infra Clin. Teaching Staff Ritchie, W. T., M.D. Prof. M'Crie, J. G., M.B. Lectr. Thomson, W. A. R., M.B. Asst.
Medicine (for subjects of the first 2 yrs.— Anat., etc., v. supra)	Medicine, Clinical, v. also infra Clin. Teaching Staff Russell, W. R., M.B. Asst. 7 Clin. Tutors.
Child Life and Health M'Neil, C., M.A., M.D. Prof.	Mental Diseases, v. Psychiat.  Midwifery and Diseases of
Children, Diseases of Carmichael, N. S., M.B. Lectr. Thatcher, L. H. F., M.D. Lectr. Hertzfeld, Gertrude, M.B. Lectr. Dott, N., M.B. Lectr. Murray, J. M'N., M.B. Asst. Finlay, T. Y., M.D. Asst. Alexander, W. A., M.B. Asst.  Dental Diseases Jamieson, J. D. H., H.D.D. Lectr.  Dermatology, Clinical, v. infra Clin. Teaching Staff	Women, v. infra Clin. Teaching Staff 3 Tutors, and I Tech. Asst.  Neuro-Pathology Reynolds, F. E., M.B. Lectr. Carmichael, R., M.B. Supervisor.  Orthopædics Cochrane, W. A., M.B. Lectr.  Pathology, v. also Anat.—Morb. and Bacteriol.  Drennan, A. M., M.D. Prof. Rettie, T., D.Sc. Lectr.  Millar, W. G., M.B. Lectr.

LL.D.

Melville-Dunlop, D., M.B.

Rooven, Clennel E. Van., M.B. Asst. Simpson, J. C., M.B. Asst. Macgregor, Agnes R., M.B. Asst. Venereal Diseases Monro, J. E., M.A., M.B., F.R.C.S. Lees, David, M.D. Lectr. Asst. Liston, Mary F., M.B. Tutor. Ogilvie, R., M.B. Asst. Lees, R., M.B. ,, Dodds, T. Tech. Asst. Batchelor, R. C. L., M.B. Psychiatry Robertson, G. M., M.D. Prof. Clinical Teaching Staff M'Alister, W., M.B. Lectr. Clarkson, R. D., B.Sc., M.D. Lectr. Clinical Surgery Fairbairn, W. R. D., M.A., M.D. Surgeons-in-Ordinary Lectr. Chiene, George L., M.B., Ch.M. Lectr. Bruce, N., M.D., D.Sc. Stuart, W. J., M.B., Ch.B. Struthers, J. W., M.B., Ch.B. Bailey, J. R., M.B. Glas. Clin. Tutor. Wilkie, D. P. D., M.D., Ch.M. Public Health Wade, Henry, M.D. Lelean, P. S., C.B., C.M.G. Prof. Fraser, John, M.D., Ch.M. Langrishe, J. du P., M.B., D.P.H. Graham, J. M., M.B., Ch.M. Lectr. Asst. Surgeons: Ferguson, T., M.D., D.P.H. Glas., Watson, A. Pirie, M.B., Ch.M. F.R.C.P.(Indust. Hyg.) Lectr. Jardine, F. E., M.B. Guy, J., M.D. (M.O.H. for the city) Wood, W. Q., M.D., Ch.M. (San. Administration) Lectr. Shaw, J. J. M., M.B. Mercer, Walter, M.B. Radiology and Electrical Therapeutics Cochrane, W. A., M.B. White, J. D., M.D. Lectr. Brown, K. Paterson, M.B. Stewart, R. L., M.B. Sanitary Administration, Miller, T. M'W., M.B. Public Health Clinical Medicine Surgery, v. infra Clin. Teaching Staff Physicians-in-Ordinary: 7 Clin. Tutors. Watson, D. Chalmers, M.D. I Tech. Asst. Bramwell, Edwin, M.D. I Teacher of Anæsthetics. Matthew, Edwin, M.D. Therapeutics, v. also infra Clin. Eason, John, M.D. Teaching Staff Ritchie, W. T., M.D. Lyon, D. Murray, M.D., D.Sc. Prof. Lyon, D. Murray, D.Sc., M.D. Gilchrist, A. R., M.B. Comrie, J. D., M.D. Lectr. Dunlop, D. Melville, M.B. Goodall, Alex., M.D. Physiological Lectr. Asst. Physicians: Murray-Lyon, R. M., M.B. Asst. Mathewson, G. D., M.B. Tod, H., B.Sc., Ph.D. Asst. Hewat, A. Fergus, M.D. Tropical Climates Diseases Watson-Wemyss, H. L., M.D. Small, W. D. D., M.D. Greig, Lt.-Col. E. D. W., C.I.E., I.M.S. Lectr. Rutherford, Andrew, M.B. Alexander, W. A., M.B. Tuberculosis Philip, Sir Robert W., M.A., M.D., Clinical Gynæcology

Prof.

Asst.

Gynæcologists:

Johnstone, R. W., M.A., M.D.

Davidson, H. S., M.B. Young, James, M.D. Asst. Gynæcologists: Haultain, W. F. T., M.B. Miller, D. A., M.D. Fahmy, E. C., M.B.

Surgeons: Sinclair, A. H. H., M.D. Traquair, H. M., M.D. Asst. Surgeons: Chalmers, E. H., M.B.

Ophthalmology

Ear, Nose, Throat Surgeons: Fraser, John S., M.B.

Graham, C. W., M.B.

Lithgow, J. D., M.B.
Asst. Surgeons:
Gardiner, W. T., M.B.
Martin, G. E., M.B.

Diseases of the Shin
Physicians:
Gardiner, Frederick, M.D.
Low, R. Cranston, M.D.
Asst. Physicians:
Aitken, Robert, M.D.
Percival, G. H., M.B., Ph.D.

#### University Extension

19 Tutors, including 6 Univ. Profs. and 11 Univ. Lectrs.

# ASSOCIATED COLLEGES, in which Univ. courses are provided at Edinburgh.

Edinburgh and East of Scotland College of Agriculture, v. also App. XXIV. p. 792. Principal and Prof. of Agric. and Rural Econ., Prof. E. Shearer, M.A., B.Sc. The Univ. staff and the following: Lectrs.: Agr. and Rural Econ., T. Young, N.D.A. (Evening Classes); Agr. Engin. and Surveying, L. M. Walker, B.Sc.; Bacteriol., T. Gibson, B.Sc.; Chem. and Agr. and Forest Chem., A. Lauder, D.Sc., F.I.C.; Hortic., J. S. Chisholm. 7 other teachers, 7 Advisory and 24 Extension staff.

Heriot-Watt College. Principal, J. C. Smail, O.B.E., F.R.S.E. 37 Profs. and teachers; 47 addnl. Lectrs. and Instrs.

New College. Principal, Rev. Alex. Martin, D.D. The Univ. Profs. and the following Profs. and Lectrs.: Apologetic Theol., Christian Ethics, and Pract. Training, Rev. D. Lamont, D.D.; Church Hist., Rev. H. Watt, D.D.; Dogmatics, Rev. H. R. Mackintosh, D.Phil., D.D.; Elocution, G. Goring; Nat. Sci., J. Y. Simpson, D.Sc.; New Test. Lang., Lit. and Theol., Rev. W. Manson, D.D.; Old Test. Lang., Lit. and Theol., Rev. A. C. Welch, D.D., Th.D.; Pract. Training and Sociol., Rev. J. H. Miller, C.B.E., D.D.; Relig. Instrn., W. Boyd, M.A., B.Sc., D.Phil.

ROYAL (DICK) VETERINARY COLLEGE. Principal and Prof. of Anat. and Histol., O. Charnock Bradley, M.D., D.Sc., M.R.C.V.S. Other Profs.: Animal Pathol., J. R. Greig, Ph.D., M.R.C.V.S.; Chem. and Physics, R. G. Thin, B.Sc., F.I.C.; Hyg. and Dietetics, R. G. Linton, Ph.D., M.R.C.V.S.; Med. and Materia Medica, G. F. Boddie, B.Sc., M.R.C.V.S.; Pathol., Bacteriol., and Meat Inspection, D. C. Matheson, F.R.C.V.S., D.V.S.M.; Physiol., H. Dryerre, Ph.D. Edin., M.R.C.V.S. Eng., L.R.C.P. Lond., F.R.S.E.; Surgery and Obstet., W. M. Mitchell, M.C., T.D., M.B., Ch.B., B.Sc., M.R.C.V.S. 7 Lectrs., 4 Assts., I Demr., I Hon. Radiologist, 3 Clin. Assts.

# GENERAL INFORMATION, v. also pp. 289 ff.

Originally the "Town's College," founded in 1583 by the Town Council under general powers granted by Royal Charter, April 14, 1582. The Old

College on the site of "Kirk o' Field," the scene of the murder of Lord Darnley, was designed by Robert Adam, and completed in 1838. Newer buildings include the Medical Buildings and the M'Ewan Hall (1888-97), which holds 2600 and has a great electric organ; and "The King's Buildings" (commenced in 1920) for Chemistry and other Science Depts. The Medical School of this Univ. has been famous for many generations; specially ample provision exists also for instruction and research in Theology (post-grad. school instituted 1919), Agric., For., Engin., Mining, and Vet. Sc. Edinburgh is the seat of the Scottish Supreme Courts of Law.

LIBRARY, founded in 1580, 350,000 vols., 8000 MSS., includes special collections - Shakespearean, Sanskrit, Celtic, Persian, and Arabic MSS., Economics (Hodgson), Math. tables by E. Sang, transactions of Engin. Societies in Great Britain and America, the Laing Charters (A.D. 854-1837), the Laing manuscripts, the Abercromby collection of 2500 vols. on archæology, ethnology, etc.; the Blackie collection of modern Greek books. the Bruce collection of books on oceanographical subjects, the Cameron collection of Celtic literature. Museums: Nat. Philos., Fine Art, Geol., Nat. Hist., Chem., Forestry, Agric., Entom. and Forest Zool. (Waterhouse collection of Coleoptera), Anat. (founded with the Monro collection in 1800; numerous specimens of Cetacea and human crania), Physiol., Mat. Med. (notable collections of medicinal and food substances, including those of Duncan and Christison), Forensic Med., Practice of Physic, Surg., Obst. (Simpson collection), Music and Musical Instruments. The Prof. of Botany is Regius Keeper of the Royal Botanic Garden; the Prof. of Astronomy is Astronomer Royal for Scotland and gives practical courses at the Royal Observatory. The LABORA-TORIES are especially well equipped for research in Anatomy, Anthropology, Bacteriology, Chemistry (the Labs. at King's Buildings, completed 1924, have accommodation for about 400 students), Zool., Mining, Engin. (notably Hydrs.. Strength of Materials, Elec. Engin.), Mat. Med., Path., Physics, Physiol., Psych., Pub. Health. The Univ. has a table at the Millport Marine Station. Hospitals: the Royal Infirmary adjoining the Univ. provides over 900 beds for clinical teaching, in addition to the Children's, Maternity, and Fever Hospls., the Royal Mental Hospl., and the Royal Victoria Hospl. for Tuberculosis. Over 50 resident posts in these are given annually to Med. graduates.

FACULTIES. (1) Arts, (2) Science (including Engineering, Mining and Metallurgy, Technical Chemistry, Public Health, Agriculture, Forestry, and Veterinary Science, as well as Pure Science), (3) Divinity, (4) Law, (5) Medicine, (6) Music. Deans: (1) Prof. N. K. Smith (Philos.), (2) Prof. Sir T. Hudson Beare (Engin.), (3) Prof. Curtis (Biblical Criticism), (4) Prof. Mackintosh (Roman Law), (5) Prof. Sydney Smith (Forensic Med.), (6) Prof. Tovey (Music).

Admission. See Appendix XX.

Degrees and Diplomas (v. also pp. 291 ff.). A diploma in *Education* is granted on completion of Univ. courses (1 yr.) and passing examns. in Psych., Theory and Hist. of E., and modern E. Systems and Problems. Candidates must have attended a course of Professional training or have had at least 3 yrs.' experience as a teacher, and must have completed a graduation course in Arts. Diplomas are also granted in *Actuarial Mathematics* (2 yrs.), *Technical Chemistry* (open to graduates who have taken a degree in Science with Honours in Chemistry), *Engl. Language*, *Spanish*, and a Diploma and a Certif. in *Social Study*.

A candidate for the B.Sc. in *Vet. Sc.* must (i.) have passed the Prelim. examn. for degrees in Sc., (ii.) have been engaged in Vet. study for 4 yrs., (iii.) have a registrable qualification, (iv.) have attended certain specified

courses, including I yr. of study in this Univ. The Royal (Dick) Vet. Coll., Edin., provides certain of the qualifying courses.

Diplomas in Pub. Health (x yr. course), in Tropical Med. and Hygiene (3 mos.), in Psychiatry (x yr.), in Radiology (x yr.), and in Tropical Vet. Med. (6 mos.), are open to graduates of the Univ. and registered Med. practitioners.

Candidates for the *Mus.Bac*. must have passed the Prelim. Examn. or its equivalent, and attended a course in this Univ. during 3 winter sessions. A Mus.Bac. of 3 yrs.' standing may offer himself for the Mus.Doc. (which may also be conferred *honoris causa*) as Composer, as Executant, or as Theorist or Historian.

RECOGNITION OF INSTITUTIONS AND TEACHERS outside the United Kingdom: (a) For exemption from one (not the final) year of the course for M.A. or for B.Com. and from attendance on classes in and examn. in two subjects for the Ordinary Degree: the following Univs.—Alb., Dal., McG., Manit., Queen's (Kingston), Tor., Adel., Melb., Syd., N.Z., S. Africa, All., Bom., Calc., Mad., Panj., Paris, Tokyo, Osaka, Sendai, and such other Univs. as the Univ. Court may from time to time approve; graduates of the American institutions listed in Appendix XXVI.

(b) For some of the courses for the B.Sc.: Madras Coll. of Agric., Colls. affiliated up to B.A. and B.Sc., and Engin. Colls. affiliated to the Indian Univs., Univs. and Polytech. Sch. supported and regulated or recognized by Govts. in Europe.

(c) For admission as graduate in Arts to the LL.B. examn.: the Univs. of

All., Calc., Mad., v. also (f).
(d) For 2 of the 3 yrs. study for LL.B.: McGill Univ., Madras Law Coll., Law Coll., Trevandrum, Ripon Coll., Calc., Rangoon Univ.

(e) For 3 of the 5 yrs. of Med. study: recognized teachers in Singapore (in Physiol. and Practice of Med.) and Wellington, S. Africa (in Chem.).

(f) For admission of graduates from these institus, to study for the Ph.D. degree (General Recognition is also granted to them in terms of the various Graduation Ordinances): the following Univs.—Dal., King's Coll. (N.S.), Laval, McG., Manit., Queen's (Ont.), Tor., Adel., Melb., Queenland, Syd., W. Aust., N.Z., Cape Town, S. Africa; all Colleges affiliated to these Univs.; Univs. and Colls. approved by the Assocn. of American Univs.

Post-graduate Courses in Medicine are held during the Summer and Autumn Terms and the Summer Vacation. Particulars obtainable from the Hon. Sec., P.-G. Courses in Med., Univ. New Buildings, Edinburgh. The Post-graduate School of Theology issues a detailed list of courses. Graduates contemplating research should apply to the Deans.

SCHOLARSHIPS. Total annual value over £25,000; for graduates only, £6000. Most are open to colonial and foreign students. The Earl of Moray's Endowment provides about £1200 p.a. for research.

Travelling for study or research is encouraged by Dickson Fund (£90 p.a.), Dundas Latin Studies Fund (£45 p.a.), Drummond Mathematical Scholarship (£140 p.a. for 3 yrs.), Maclaren Mathematical Scholarship (£206 for 3 yrs.), Scott Scholarship for Graduates in Arts (£73), M'Cosh Bursaries for Graduates in Medicine (£300).

FEES (v. Carnegie Trust, p. 294). Inclusive tuition fees for LL.B., 42 gs.; B.L., 30 gs.; B.Sc. Engin., 90 gs.; Agr., Ord., 90 gs., Hons., 120 gs.; Mining, 105 gs.; Forestry, 105 gs.; Technical Chemistry, 120 gs.; Pure Sc., 100 gs.; B.D., 33 gs.; M.B., Ch.B., including Hospl. Fees, 205 gs. Combined M.A. and B.Sc. in Pure Sc., 130 gs.; M.A. and B.Sc. in Agr. or Engin., M.A. and B.Com. or LL.B., 70 gs.; M.A. and B.L., 65 gs.; B.Sc. in Agr. and in For.,

135 gs. Graduation examns.: M.A.,  $7\frac{1}{2}$  gs.; B.D.,  $7\frac{1}{2}$  gs.; Ll.B., 9 gs.; B.L.,  $7\frac{1}{2}$  gs.; Mus.B., 15 gs.; Mus.D., 15 gs.; Ph.D., 10 gs.; B.Sc., 9 gs.; D.Sc., 15 gs.; M.B., 33 gs.; M.D., 20 gs.; Ch.M., 20 gs.

Halls of Residence, etc. For men: Cowan House, George Square; accommodation for about 100 students. Terms, £17: 10s. to £23 per term; University Hall on a self-governing basis (information from Messrs. Whitson and Methuen, 21 Rutland Street), Board and lodging about £2: 12: 6 a week. For women: East Suffolk Rd., Craigmillar Park (Warden), £50 for the three terms; Masson Hall, 31 and 32 George Square (Warden); and Muir Hall, 12 George Square (Warden), £60 to £72 p.a. Six months' notice generally necessary.

APPOINTMENTS COMMITTEE. Secretary: T. A. Joynt, M.A.

General Adviser of Women Students: Miss M. Rackstraw, B.A., Old Quadrangle.

There is a Franco-Scottish Society for advising and assisting French students in Scotland and Scottish students in France. It has local centres at Glas., Aberd., and Dundee.

Indian Students' Adviser: J. E. Mackenzie, D.Sc.

UNIV. EXTENSION, ETC. The Univ. is now represented on the Advisory Committees for the management of the Tutorial Classes for adults instituted by the Edin. Educational Authority, in co-operation with the Edinburgh W.E.A. Summer Classes (4 weeks) for Teachers are held during vacation, the lecturers being drawn mainly from the Univ. staff. Certificates gained at the courses qualify for endorsement on teachers' certificates.

Official Publications. The Calendar (Aug.), 5s.; the Prelim. and Degree Examn. Pprs. (May and July), 5d. to 2s. a set (James Thin, 55 South Bridge). The Students' Handbook issued by the Students' Representative Council. Facilities for advanced Study and Research free on application.

HISTORIES OF THE UNIV.: Bower, Alexr., chiefly compiled from original papers and records, never before published, 3 vols., Edin., 1817-30; Dalzel, Andrew (ed. by D. Laing), with a Memoir of the Author (by C. Innes), 2 vols., Edin., 1862; Grant, Sir Alexr., The Story of the Univ. during its first 300 years, 2 vols., London, 1884.

# THE YEAR 1930-31

Benefactions. From Dr. T. B. Macaulay to the Dept. of Research in Animal Breeding, £3000 for further accommodation for Sex-Physiology, and of £1500 for a Rat House. Also £3000 p.a. for 3 yrs. for maintenance and operation of the section. Bequest by the late Mrs. A. M. Cameron of her estate, the income to be utilised in endowing a yearly prize for the best paper on Bacteriol. or on the Diagnosis of Disease. From the Ayrshire Cattle Herd-Book Society, £75 to the Dept. of Research in Animal Breeding to purchase a Bull. From Sir Otto Beit, £6000 to endow "The Beit Tutorship" in Clin. Obstetrics. From an anonymous donor, £500 for furnishing a new Masson Hall. From the Trustees of the late Edward Clark, Printer in Edinburgh, £500 for equipment for the Dept. of Geog. From the late Dr. Walter Smith Kay, £500 for research in Mental Diseases. From the late Rev. James Davidson, £600 for a Bursary tenable by pupils of North Berwick High School. From the late Miss Jane Edith Lockhart, hcritable property in Kinross-shire for Agric. Research or for Research in Anæsthetics, and an annual prize of £200 for the best discovery in Anæsthetics or in Research for the Cure of

Disease. From the late Dr. William Paterson, Glasgow, the residue of his estate for a Travelling Scholarship in Surgery. Prize from Sir Alexander Rodger, O.B.E., for the best Graduate in Forestry in 1931–32 and 1933. From Dr. C. B. Gunn, Peebles, 14 vols. of "Books of the Church" Series. From Prof. Robinson, microscope, books, and specimens to the Anat. Dept. Portrait of the late James Walker, C.A., LL.D., from his sisters. Portrait of Prof. Paterson from H. W. Kerr.

RECENT DEVELOPMENTS. The following Ordinances made by the University Court approved by H.M. in Council: No. 56—Regulations for Degrees in Science in Mining; No. 57—Foundation of the Edward Clark Chair of Child Life and Health; No. 58—Foundation of the Chair of Psychology; No. 59— Foundation of the Chair of Geography; No. 60-Amendment of Regulations for Degrees in Science in Forestry. The University Court resolved to recognize the Profs. of New College as Teachers whose courses qualify for the Degree of B.D. A Post-graduate Dipl. in Spanish instituted. The curriculum for the Dipl. in Public Health revised to conform to new Regns. of the General Medical Council. Extension of the Library and Reading-room accommodation approved in that part of the Old College left vacant by the Dept. of Zool.; also an extension of the Administrative Offices. New buildings for the Depts. of Engin, and Geol, completed. New Playing Field and Pavilion for Women Students at Peffermill Road opened. A lease of Dreghorn Forest Nursery taken. An Extra-mural Committee for Adult Education constituted to co-operate with the Joint Advisory Committee for S.E. Scotland. The new Chancellor, Sir James M. Barrie, Bart., installed, Oct. 25, 1930. The Rector, the Rt. Hon. Winston Churchill, delivered his Address, March 5, 1931. The Premiers of Canada, Australia, and New Zealand visited the University in Nov. 1930, when the Hon. Degree of LL.D. was conferred on them. The 4th Quinquennial Congress of the Universities of the Empire met in Edinburgh in July 1930, the meetings being held in the University buildings. The use of rooms was granted for the International Illumination Congress in September 1931.

THE EDINBURGH W.E.A. Enrolments, 1349.

DEATHS. Prof. Lorrain Smith (Pathol.), John Petrie Dunn (Music).

RESIGNATIONS AND RETIREMENT. Prof. Sarolea (French); Prof. Robinson (Anat.); Prof. Mackinnon (Eccles. Hist.); Bruce Dickins (Engl. Lang.), on appt. as Prof. in Leeds; Alex. Oppenheim (Maths.), on appt. as Prof. in Singapore; Arch. Cameron (Humanity), on appt. as Prof. of Greek in Aberdeen; K. G. Fenelon (Pol. Econ.), on appt. as Lectr. in Manchester; W. J. Lewis (Evidence and Procedure).

Honorary Degrees. D.D.—Rev. Robert Morgan Adamson, M.A. (Edin.), Hon. C.F.; Rev. John Agnew Findlay, M.A.; Right Rev. Johannes Petrus van Heerden, B.A., LL.D., Moderator of the Synod of the Dutch Reformed Church, Cape Town, S.A. (in absentia); Rev. Prof. Wilfred Monod, Doc.Theol., Pastor of the Reformed Church, Oratoire du Louvre, Paris (in absentia); Joseph Houldsworth Oldham, M.A., Sec. of the Intern. Missionary Council, London; Rev. Hubert Louis Simpson, M.A. (Edin.), C.T.F., Minister of the Westminster Congregational Church; Very Rev. Charles Laing Warr, M.A. (Edin.), Dean of the Chapel Royal, Dean of the Thistle, Minister of St. Giles' Cathedral. LL.D.—Sir Thomas Henry Holland, K.C.S.I., K.C.I.E., F.R.S., Principal and Vice-Chancellor of the Univ.; Harley Granville-Barker, F.R.S.L.; Neil Munro; Sir Arthur Thomas Quiller-Couch, M.A., Litt.D., King Edward VII. Prof. of Engl. Lit., Univ. of Cambridge; Sir Joseph John Thomson, O.M., F.R.S., D.Sc., Master of Trin. Coll., Cambridge; Edgar Johnson Allen, D.Sc.,

F.R.S., Director of the Marine Biol. Laby., Plymouth; Rt. Hon. The Earl of Athlone, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., late Governor-General of the Union of S. Africa; Sir George Andreas Berry, Kt., M.B. (Edin.), M.P. for the Scottish Univs. (in absentia); Sir Atul Chandra Chatterjee, K.C.S.I., K.C.I.E., High Commissioner for India; George Gordon Coulton, F.B.A., Litt.D., Fellow of St. John's Coll., Cambridge; Hon. Patrick Duncan, C.M.G., M.A. (Edin.), President of the Special Court of Bechuanaland Protectorate; Sir Walter Morley Fletcher, K.B.E., C.B., Sc.D., M.D., F.R.C.P., F.R.S., Sec. of the Medical Research Council; Sir William Searle Holdsworth, Kt., K.C., M.A., D.C.L., Vinerian Prof. in Engl. Law, Fellow of All Souls' Coll., Oxford; James Mackinnon, M.A. (Edin.), Ph.D., D.D., Prof.-Emer. of Eccles. Hist. in the Univ. of Edinburgh; Rt. Hon. Sir Thomas Barnby Whitson, C.A., Lord Provost of the City of Edinburgh; Sir Alexander Kemp Wright, K.B.E., D.L., Genl. Manager, Royal Bank of Scotland; Rt. Hon. Richard Bedford Bennett, K.C., Prime Minister of the Dominion of Canada; Rt. Hon. James Henry Scullin, Prime Minister of the Commonwealth of Australia; Rt. Hon. George William Forbes, Prime Minister of the Dominion of New Zealand.

STUDENTS. Full-time: total, 3725, including 224 graduates. Part-time total, 643, including 105 graduates.

Degrees. D.Litt. 2 (m.); M.D. 22 (m.), I (w.); D.Sc. (Pure), 5 (m.), 2 (w.); Ph.D. Divinity, I2 (m.); Ph.D. Law, I (m.); Ph.D. Arts, 8 (m.), 4 (w.); Ph.D. Science, I4 (m.), 2 (w.); Ph.D. Medicine, 2 (m.); B.D. 5 (m.); LL.B. 19 (m.), I (w.); B.L. 14 (m.), I (w.); B.Ed. 2 (m.); M.A. (Hons.), 6I (m.), 53 (w.); M.A. (Ord.), 93 (m.), I49 (w.); B.Com. I8 (m.), 5 (w.); B.Sc. Pure (Hons.), I8 (m.), 7 (w.), (Ord.), 7 (m.), 2 (w.); B.Sc. Engineering (Hons.), I5 (m.), (Ord.), I6 (m.); B.Sc. Agriculture (Hons.), 3 (m.), I (w.), (Ord.), 9 (m.); B.Sc. Forestry (Hons.), 3 (m.), (Ord.), 10 (m.); B.Sc. Veterinary, 4 (m.); B.Sc. Mining, 2 (m.); B.Sc. Technical Chemistry (Hons.), 2 (m.); Mus.Bac. I (m.); Mus.Bac. I (m.); Mus.Bac. I (m.); M.B., Ch.B. I59 (m.), I8 (w.).

DIPLOMAS. D.T.M. & H. 7 (m.); D.P.H. 5 (m.), 5 (w.); Dipl. Psychiatry, I (m.); Dipl. Radiology, 5 (m.); D.T.V.M. 2 (m.); Dipl. Education, 19 (m.), 22 (w.); Dipl. Geography, 5 (m.), 8 (w.); Dipl. Actuarial Mathematics, I (m.), I (w.); Dipl. Social Study, 2 (w.); Certif. Social Study, 10 (w.); Dipl. Technical Chemistry, I (m.).

#### UNIVERSITY OF GLASGOW

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VICE-CHANCELLOR AND PRINCIPAL—ROBERT S. RAIT, C.B.E., LL.D. RECTOR—COMPTON MACKENZIE, O.B.E. (elected 1931).

Dean of Faculties—Emeritus Prof. F. O. Bower, Sc.D., D.Sc., LL.D., F.R.S. For Dean of each Faculty, see "General Information."

SECRETARY TO THE UNIV. COURT—J. S. MUIRHEAD, M.A., LL.B.

CLERK OF SENATE—Prof. J. R. CURRIE, M.A., M.D., D.P.H.

REGISTRAR-ROBT. BROUGH.

LIBRARIAN AND KEEPER OF HUNTERIAN BOOKS AND MSS.—W. R. CUNNINGHAM, M.A.

CLERK OF THE GENERAL COUNCIL—D. M. HUTCHISON, LL.B.

# QUEEN MARGARET COLLEGE

Mistress-Miss F. H. MELVILLE, M.A., B.D., LL.D.

#### UNIVERSITY COURT

THE RECTOR, ex officio.

THE PRINCIPAL, ex officio.

THE LORD PROVOST OF GLASGOW, ex officio.

WILLIAM BRODIE, LL.D.

Sir Iain Colquhoun, Bt., D.S.O.

J. BRUCE MURRAY, LL.D.

J. F. FERGUS, M.A., M.D.

D. BAIRD SMITH, C.B.E., LL.D.

R. A. DUFF, M.A., D.Phil.

D. MACGILLIVRAY, M.A., LL.D.

Prof. E. P. CATHCART, C.B.E., LL.D., D.Sc., M.D., F.R.S.

Prof. W. MACNEILE DIXON, Litt.D., LL.D.

Prof. G. G. HENDERSON, M.A., D.Sc., LL.D., F.R.S.

Prof. J. D. CORMACK, C.M.G., C.B.E., D.Sc.

#### PROFESSORS, LECTURERS, ETC.

Accountancy

Loudon, J., M.A., C.A. Prof. Davidson, W. L., C.A. Asst.

Agriculture, v. infra West of Scotland Coll. of Agr.

Anatomy

Bryce, T. H., M.A., M.D. Edin., F.R.S. Reg. Prof. Maclaren, Norman, Ph.D. (Embryology) Lectr.
Nicol, T., M.B. (Regional A.) Lectr.
Henderson, E. E., M.B. Lectr.
Wyburn, G. M., M.B. Demr.

Wyburn, G. M., M.B.

Montgomery, J. W., M.B.

Hamilton, W. J., M.B.

Demr.

Robertson, A. F., M.B.

Demr.

Harvey, Robt., M.B.

Demr.

Arabic Tucker, S. H., M.A. Ox., M.Sc., Robson, J., M.A. Lectr. Ph.D. Lond. Buchanan, C., B.Sc., Ph.D. Lectr. Astronomy Stevens, T. S., B.Sc., D.Phil. Ox. Becker, L., Ph.D. Bonn. Reg. Prof. Carnegie Teaching Fellow. Ross, John J., M.A. Demr. Kent, Andrew, M.A., B.Sc., Ph.D. Botany Asst. Walton, J., M.A. Camb., D.Sc. Somerville, R., M.A., B.Sc. Asst. Reg. Prof. Manc. Storrie, F. R., B.Sc., Ph.D. Asst. Robertson, J., B.Sc. Lecturers: Asst. 1 tempy. Asst. Williams, S., M.Sc. Manc., Ph.D. Thomson, J., M.A., B.Sc., Ph.D. Chemistry, Physical Jones, S. G., D.Sc. Wright, Robert, D.Sc. Belf. Lectr. Bond, G., B.Sc., Ph.D. Mitchell, Stotherd T. R. S., D.Sc., Carnegie Teaching Fellow. Ph.D. Case, Isabella M., B.Sc., Ph.D. Carnegie Teaching Fellow. Asst. Thomson, George, B.Sc., Ph.D. Asprey, G. F., B.Sc. Lond. Asst. Asst. Classics, v. also Philol. Prof. [Lectr. Davies, G. A., M.A. Camb. (Greek) Calder, G., B.D., D.Litt. Edin. Lecturers: Chemistry, v. also Physiol. Chem. Gomme, A. W., B.A. Camb. (Gk. Henderson, G. G., D.Sc., LL.D. and Gk. Hist.). St. And., F.R.S. Reg. Prof. Kitto, H. D. F., B.A. Ox. (Greek). Lecturers: Muir, W. E., M.A. (Greek). \*Bolam, H. W., B.Sc. Edin., Ph.D. Rennie, W., M.A., Ed. and Camb., Knox, J., D.Sc. Aberd, Litt.D. Liv. (Humanity) Prof. (Med. Studs.). Lecturers: Roberts, J., M.A. Nisbet, R. G., M.A. (Latin) Henderson, A., M.A., B.Sc. Pirie, J. W., M.A. Aberd. (Latin) Mair, J. A., B.Sc., Ph.D. M'Glynn, P., M.A., D.Litt (Latin). (Anal. Chem.). Austin, R. G., M.A. Ox. (Latin) Chisholm, D., B.Sc., Ph.D. Kelly, A. S., M.A. (Latin). M'Culloch, W. P., B.Sc. Divinity, v. also Hebrew Carnegie Teaching Fellows: Fulton, W., B.Sc., D.D. Gibson, D. T., M.Sc., Ph.D. Belf. Primar. Prof. Russell, A., D.Sc. Belf. Milligan, Very Rev. G., D.D. Assistants: Aberd., D.C.L. Durh. (Bibl. \*Morrison, Jane, M.A. Reg. Prof. Crit.) Lewin, Christina T., B.Sc. Main, A., M.A. Glas., B.A. Ox., Blair, R. D., B.Sc. D.Litt., D.D. (Church Hist.) \*Stewart, Eliz. C., M.A., B.Sc. Reg. Prof. Loudon, J. D., B.Sc. Temple, The Most Rev. Wm., D.D., D.Litt., Archbp. of Chemistry, Organic Patterson, T. S., D.Sc. Lond. & York Gifford Lectr. in Nat. Theol. Glas., Ph.D. Heid.

Economics, v. Pol. & Social Econ.

Gardiner Prof.

<sup>\*</sup> At Queen Margaret Coll,

Education [Lectr. Boyd, W., M.A., B.Sc., D.Phil. Inglis, W. B., M.A., Ed.B., Ph.D. Lectr.	Purser, J. W. R., B.A., T.C.D. May, Maude G., M.A. French
Embryology, v. Anat.	Martin, C. A., M.A. Chev. d. l. Leg. d'H., C.G., O.I.P. Prof.
Engineering, v. also Naval Archit. Goudie, W. J., D.Sc. J. Watt Prof. of Theory and Practice of Heat Engines Small, J., B.Sc., Ph.D. Lectr. Geyer, E. W., B.Sc. Lectr.	Lecturers: Pitoy, L. M., B.Sc., L. ès L. Phil. Pitoy, Mary C., M.A. Ferguson, Marjorie M., M.A. Silver, R. C., M.A., L. ès L. Perroy, E., L. ès L. Anderson, N. C., M.A. M'Innes, W. A., M.A. Asst.
Engin., Civil and Mech.	Cattan, L. Asst.
Cormack, J. D., C.M.G., C.B.E., D.Sc. Reg. Prof. Brown, R. M., D.Sc., Ph.D. Lectr. Keown, J. E., B.Sc. (Drawing and	Geography Stevens, A., M.A., B.Sc. Lectr. Crowe, P. R., B.Sc. Lond. Lectr.
Design) Lectr. Morrison, J. C., B.Sc., Ph.D. Lectr. Wilson, J., B.Sc. Lectr. M'Gregor, W., B.Sc. Lectr. Thom, A., D.Sc., Ph.D. Carnegie Teaching Fellow.	Assistants: Grieve, Eliz. M., B.Sc. Lebon, J. H. G., B.Sc. Lond. Fairhurst, H., B.A. Liv. Huggins, K. H., B.Sc. Lond. Snodgrass, Catherine, Ph.D. Ed.
Orr, J., B.Sc., Ph.D. Carnegie Teaching Fellow. M'Donald, G. G., B.Sc. Asst.	Geology Bailey, E. B., M.A. Camb., F.R.S.
I temp. Asst.	Prof.
Engineering, Electrical	Tyrell, G. W., Ph.D., D.Sc., A.R.C.S. Lectr.
Howe, G. W. O., D.Sc. Durh. and Adel. J. Watt Prof. Hague, B., D.Sc. Lond., Ph.D.	Neilson, Agnes T., M.A. Lectr. Weir, J., M.A., Ph.D. Lectr. Barrett, B. H., M.A., B.Sc.
Lectr.	Carnegie Teaching Fellow.
Scobie, J., B.Sc. Lectr. Small, A. J., B.Sc. Lectr.	M'Callien, Wm. J., D.Sc. Lectr. Currie, Ethel D., B.Sc., Ph.D.
Engineering Production Sloan, K. M. Lectr.	Lectr. Latham, Mary H., M.A.
English Language and Literature Dixon, W. M., Litt.D. Dub., LL.D. Aberd. and Dub. Reg. Prof.	Carnegie Teaching Fellow. Flett, W. R., B.Sc. Asst. Leitch, D., B.Sc. Asst.
Lecturers: Bickersteth, G. L., M.A. Ox. Girvan, R., M.A. (Eng. Lang.) *Alexander, P., M.A. Gray, Margaret M., M.A. Wright, B. A., B.A. Ox.	German Smith, H., M.A. St. And., Ph.D. Marb. William Jacks Prof. Clark, James M., M.A., Ph.D. Lectr. Flint, Mary C., M.A. Asst. Hoops, R., Ph.D. Asst.

Hebrew and Semitic Langs. Stevenson, W. B., D.Litt., D.D.	Smith, J. H., M.A. Asst. Gillespie, R. P., M.A. Asst.
Edin. Prof.	Medicine and Surgery, v. infra
Harris, E. J., B.D. Asst.	
History, v. also Div., Law, Pol. Econ.	Metallurgy, etc., v. R. Tech. Coll.
Browning, A., M.A., D.Litt. Prof.	Mining
Sayles, G. O., M.A. Lectr. Tweeddale, Greta C., M.A. Lectr.	Dron, R. W., M.A. Dixon Prof. Adam, D., B.Sc. Lectr.
Hislop, Ian G., M.A. Lectr. Miller, S. N., M.A. (H. and Antiq.,	Music
Roman) Lectr.	Whittaker, W. G., M.A., D.Mus. Durh., F.R.C.O.
Mackie, J. D., M.A. Ox. (Scottish H.)	Gardiner Prof.
Lecturers:	Wintersgill, H. H., B.Mus. Ox.
Pryde, G. S., M.A., Ph.D. St.	Asst. Naval Archit., including Marine
And.	Engin.
Douglas, D. C., B.A. Ox. (Med. H.) Lees, R. M., M.A. (British H.)	Hillhouse, P. A., D.Sc.
Humanity, v. Classics	John Elder Prof. Evans, D. L., B.Sc. Lectr.
Italian [Stevenson Prof.	
Grillo, Cav. E., K.C.O.I., M.A., Litt.D. Flor., LL.D. Perugia	Philology, Comp. (Classical) Pirie, J. W., M.A. Aberd. Lectr.
MacKinven, A. D., M.A. Lectr.	Philosophy, Moral, v. also Logic
Obertello, Alfredo, D.Lit. Asst.	and Psychol. [Prof. Bowman, A. A., M.A., Litt.D.
Law, v. infra	Phillips, f. W., M.A. Lectr
Logic and Rhetoric	Campbell, C. A., M.A. I.ectr.
Paton, H. J., M.A. Glas. and Ox. Prof.	Lamont, W. D., D.Phil. Ox., M.A. Lectr.
Brown, George, M.A. Edin. Lectr.	Philosophy, Natural
Levett, Margaret J., M.A. Lectr. Haydock, G. H., M.A., B.Litt. ,,	Jones, E. Taylor, D.Sc.Lond. Prof. Houstoun, R. A., D.Sc., Ph.D.
Dickie, J. S., M.A., B.Sc. ,,	(Physical Optics) Lectr.
Cousin, D. R., B.A. Ox.	Cochrane, Charles, M.A., B.Sc.
Mathematics [Prof.	Lectr. Thomson, J., M.A., B.Sc., Ph.D.
MacRobert, T. M., M.A., D.Sc. Lecturers:	Lectr.
M'Arthur, N., M.A., B.Sc.	M'Farlane, W., M.A., B.Sc. Lectr.
M'Whan, J., M.A., Ph.D.	Physics, Applied
Arthur, W., M.A. Hyslop, J., M.A. Glas., Ph.D.	Gray, J. G., D.Sc. Cargill Prof.
Camb.	Allan, G. E., D.Sc. Birm.  Arnott and Thomson
Rankine, Jean C., M.A., B.Sc.	Demr. in Expl. Physics
Robb, R. A., M.A., B.Sc. Brown, George, M.A. Asst.	and Lectr. in Elec.
Thomson, George, M.A. Asst.	Green, G., M.A., D.Sc. Lectr. Gray, R. C., M.A., D.Sc. Lectr.
Anderson, A., M.A., B.Sc. Asst.	Younger, A. J., M.A., B.Sc. Lectr.

Physiology	Staig, R. A., M.A.
Cathcart, E. P., C.B.E., M.D., D.Sc., LL.D., F.R.S.	Chumley, James, M
Reg. Prof. Watson, A. M., M.A., Ph.D. (Histology) Lectr. Wishart, G. M., B.Sc., M.D. Grieve Lecrt Garry, R. C., M.B. Lectr. & Demr. Bell, G. H., B.Sc., M.B. Asst.	Parsons, C. W., B.A Assts.: Miller, Agnes E., M Kerr, T., M.A. Taylor, Angus G., I Fullarton, Margt. F Brown, H. H., B.A
Physiological Chem.  Hunter, A., M.A., B.Sc., M.B. Edin. Gardiner Prof. Wilson, H. E. C., M.B., D.Sc. Carnegie Teaching Fellow.	Law Gloag, W. M., K LL.D. Edin. Civil Law Muirhead, J. S., B.
Political Economy Scott, W. R., Litt.D. Dub., D.Phil. St. And. Prof. Buyers, J. A., M.A.	Const. Law and Mungo, D. B., LL. Kelly, F. N. D., Ll
(Econ. Hist.) Lectr. Nisbet, J. W., LL.B. Lectr. Macfie, A. L., LL.B. Lectr.	Conveyancing Girvan, J., LL.B. Kay, A., LL.B.
Political Philosophy White, Alex. K., M.A. Lectr.  Psychology	Evidence and Pr. M'Leish, D. A. S., Internat. Law, 1
Thouless, R. H., Ph.D., M.A. Camb. Lectr. Pickford, R. W., M.A. Camb. Asst.	ternat. Private Nicol, R. M., LL.E Jurisprudence, G M'Intosh, H., LL.E
Psychology, Industrial Oakley, C. A., B.Sc., Ed.B. Lectr.	Mercantile Law Henderson, J. J. C.
Russian [Sir William Weir Lectr. Brennan, H. G., M.A. Lond.	Boyd, J., LL.B.
Social Economics Cunnison, James, M.A. Lectr. Spanish Entwistle, W. J., M.A. Aberd. Stevenson Prof. Anderson, J. A., M.A. Lectr. M'Clelland, Ivy L., B.A. Asst. Theology, v. Divinity Zoology Kerr, J. Graham, M.A. Camb., F.R.S. Reg. Prof. Jepps, Margaret W., M.A. Camb. Lectr.	Medic. (for subjects of first etc., v. s. Bacteriology Browning, C. H., F.R.S. Dunlop, E. M., M.I. Bio-Chemistry, v. Dermatology Tomkinson, J. G., M'Call Anders Smith, J. Ferguson

Lectr. I.A., Ph.D. Lectr. A. Camb. Lectr. I.A. B.Sc. H., B.Sc. A. Camb.

C.C., B.A. Ox., Reg. Prof. [Lectr. .A. Ox., LL.B. Hist. .В. Lectr. L.B. Asst. Prof. Asst. rocedure LL.B. Lectr. Public, and Ine Law

B. Lectr. Genl. Lectr. В.

., B.L. Prof. Asst.

#### cine

st 2 yrs.—Anat., supra)

M.D., D.P.H., Gardiner Prof. Lectr. v. Pathological

M.D. son Mem. Lectr. n, M.A., M.B. Lectr.

Allan, G. A., M.D.

Nose.

Ear and Throat and

Diseases of McKenzie, Ivy, M.D. Young, G., M.B. Lectr. Medicine, Practice of Harper, James, M.A., M.B. Lectr. Monro, T. K., M.A., M.D., C.M. Syme, W. S., M.B. Reg. Prof. Electrical Diagnosis and Thera-Assistants: Adams, Douglas K., M.A., B.Sc., [Lectr. beutics Riddell, J. R., F.R.F.P.S. Glas. M'Cluskie, J. A. W., M.B., Ch.B. Park, S. D. S., M.B. Asst. MacLean, A. B., M.D. Lectr. Lendrum, R. G., M.A., M.B., Ch.B. Crawford, R. M. C., M.D. Asst. MidwifervKerr, J. M. Munro, M.D. Reg. Prof. Eve. Diseases of the M'Intyre, D., M.D. Ballantyne, A. J., M.D. Lectr. Asst. Anderson, D. F., M.B. Asst. Forensic Medicine Obstetrics and Gynæcology [Reg. Prof. Hendry, J., M.A., B.Sc., M.B. Infancy and Childhood, Dis. of Muirhead Prof. Fleming, G. B., M.B.E., B.A., M.D. Cameron, S. J., M.B. (Clin.) Lectr. Camb. (Med. Pædiatrics) Shannon, David, M.B. Samson Gemmell Prof. "Samaritan" Lectr. Graham, Stanley, M.D. Tor. Lectr. Baird, D., M.B., D.P.H. Asst. MacLennan, A., M.B. (Surgery Hunter, Alison M., M.B. Asst. and Orthopædics) · Lectr. Pathology Macfarlane, W. D., M.B. Asst. R., M.A., M.D. Muir, Edin., Ford, F. J., M.D. Asst. Sc.D., F.R.S. Prof. Materia Medica, v. also Med. Heggie, J. F., M.B., B.Sc. Lectr. [Reg. Prof. Clin. Kerr, A. B., B.Sc., M.B. Asst. Stockman, R., M.D. Edin. Kyles, W. B., M.B. Asst. Johnston, J. M., M.B. Dunn, J. Shaw, M.A., M.D. Pollok Lectr. St. Mungo-Notman Prof. Snedden, W. W., B.Sc. Weir Asst. Marshall, Alice J., M.B. Lectr. Brown, J., M.B. Wingate, Helen F., M.B. Asst. Asst. Scott, W. H., M.B. Asst. Pathology of Diseases of Infancy Medicine[Muirhead Prof. and Childhood Hunter, W. K., M.D., D.Sc. Blacklock, J. W. S., M.B. Cruickshank, J. N., M.D. Asst. Pathological Bio-Chemistry Mackay, W., M.D. Asst. Lecturers: Medicine, Clinical Telfer, Stephen V., B.Sc., M.B. Middleton, J. C., M.A., B.Sc., M.B. Cuthbertson, D. P., M.B., D.Sc. Waltonian Lectr. (also Morris, N., B.Sc., M.D. Lectr. in Mat. Med.). Pediatrics, v. Infancy Lecturers: Psychiatry (Mental Diseases) Henderson, J., M.D. Henderson, D. K., M.D. Lectr. Russell, D. W., M.B., C.M. MacDonald, J. H., M.B., Ch.B. Harrington, A. W., M.D. (Psych. Med.) Crawford, A. Muir, M.D. Mackintosh Lectr. Carslaw, J., M.A., M.B. Gracie, John, M.B. Psychological M., v. Psychiatry

Lectr.

Currie, J. R., M.D., D.P.H. Birm., M.A. Edin. and Ox. Prof. Macgregor, A. S. M., M.D., D.P.H. Hon. Lectr. (Hyg.) Mearns, A. G., B.Sc., M.B., D.P.H. Lectr. 2 part-time Assts. [Reg. Prof. Surgery Young, Archibald, B.Sc., M.B. Hutton, A. J., M.B. Asst. Robertson, J. G. M'Gregor, M.B. Asst. Mackey, W. A., M.B. Asst. Paterson, Peter, M.B., C.M. St. Mungo Prof. Burton, J. A. G., M.B., D.P.H. St. Mungo Asst. Pillans, G. L., L.R.C.P. Asst.

Public Health

Young, Roy F., M.B.
M'Intyre, Milne, M.B.
Renton, J. M., M.B.
Duff, Donald, F.R.C.S. Ed.
Taylor, J., F.R.C.S. Ed.
Tennent, R., M.B.
Taylor, M. L., M.B.
Campbell, W. A., M.B.
White, M., M.A., M.B.
Tuberculosis, Clinical

Crocket, J., M.D. Edin., D.P.H. Lectr. Wilson, I. A., M.B. Lectr.

Wilson, J. A., M.B.

Venereal Diseases Watson, D., M.B., C.M.

#### University Extension

Stevenson Lectr. in Citizenship: Burns, C. Delisle, M.A., D.Lit. Lond.

Joint Secy. for the Univ. to the Glasgow Univ. Extra-mural Education Committee: Stewart, D. M., C.I.E., M.A.

# ASSOCIATED COLLEGES, in which University courses are provided at Glasgow.

ROYAL TECHNICAL COLLEGE.

Edington, G. H., M.D., D.Sc.

Macewen, J. A. C., B.Sc., M.B.

Surgery, Clinical

Patrick, J., M.A., M.B.

Lecturers:

West of Scotland College of Agriculture, v. also App. XXIV. p. 792. Principal, W. G. R. Paterson, B.Sc., N.D.A. Profs. and Lectrs.: Agric., The Principal, Prof.; J. Kirkwood, B.Sc., N.D.A., N.D.D., C.D.A.; A. F. R. Nisbet, M.A., B.Sc., N.D.A., N.D.D., I Asst.; Agr. Book-keeping, J. Kirkwood; Agr. Econ., J. W. Nisbet, LL.B.; Agr. Engin. and Surveying, J. Malcolm, B.Sc., A.R.T.C., N.D.A.; Agr. Zool., Prof. L. A. L. King, M.A. Camb., 1 Asst.; Bacteriol., J. F. Malcolm, M.Sc. Lond., F.A.C. Glas., N.D.A., N.D.D., 4 Assts. (3 Clean Milk); Bees and Bee-keeping, J. Tinsley, F.E.S., r Asst. Lectr.; Bot., Prof. K. W. Braid, M.A. Camb., B.Sc. Aberd., W. F. Burnett, M.A., B.Sc., 1 Asst.; Chem., Prof. D. N. M'Arthur, D.Sc., Ph.D., F.I.C., E. M. Melville, M.A., B.Sc., B.Sc. (Agr.), N.D.A., I Asst. Lectr., I Asst.; Dairying, Prof. R. H. Leitch, M.A., B.Sc., B.Sc. (Agr.), N.D.A., N.D.D., D. M. Smillie, B.Sc., N.D.A., N.D.D.; Geol., M. M. Monie, M.A., B.Sc.; Hortic., D. V. Howells, Agr. Dip. (U.C.W.), F.R.H.S. (Supt.), W. Good, F.R.H.S., B. P. Perry, N.D.H., F.R.H.S., A. E. Livingston, F.R.H.S., r Asst.; Plant Husbandry, D. G. O'Brien, M.A., B.Sc., B.Sc. (Agr.), N.D.A., N.D.D.; Vet. Sci., Prof. J. R. M'Call, M.R.C.V.S. (Lectr.). 15 Advisory and 11 Extension staff.

# GENERAL INFORMATION, v. also pp. 289 ff.

Founded by a Papal Bull in 1451, after the model of Bologna, the Univ. was reconstituted by a Charter of King James VI. of Scotland in 1577. For early history, see Yearbook, 1929.

The Library, founded in the 15th century, contains 255,000 vols., including 300 books printed before A.D. 1500. Among its important collections are the Ewing, distinguished for the value and variety of its Bibles; the Hamilton, rich in philosophical works; and the Ferguson, containing rare books on the history of chemistry. The Hunterian Museum, founded in 1783, contains most valuable MSS. and early printed books and pictures and important collections of coins, anatomical preparations, zoological and mineral specimens, etc. Large new departments with spacious Laboratories have been erected for Engin., Bot., Nat. Philos., Chem., Physiol., Anat., Path., Mat. Med., Forensic Med., Pub. Health, and Zoology. There are Botanical Gardens and an Observatory. As Glasgow stands at the centre of the shipbuilding, engineering, mining, and industrial area of Scotland, it offers unique opportunities for technical training. Three large general Hosples are available for clinics, besides special institutions (including Consumption Sanatoria).

FACULTIES. (1) Arts, (2) Science, (3) Medicine, (4) Law, (5) Divinity, (6) Engineering. Depts. of Applied Science—Engineering (Civ., Elec., Mech. Mining, Naval Archit., Chem.), Applied Chem., Agric., Architecture, Public Health, Pharmacy. Deans: (1) Profs. W. Rennie (Humanity), (2) E. Taylor Jones (Nat. Phil.), (3) A. Hunter (Physiol. Chem.), (4) J. Girvan (Convey.), (5) W. Fulton (Divinity), (6) J. D. Cormack (Civ. and Mech. Eng.).

Admission, v. Appendix XX.

Degrees, v. also pp. 291 ff. Applications by Overseas students for remission of part of the class attendance for B.Sc. in branches other than Engineering will be considered sympathetically. *Diploma* in Education, r yr. course, for graduates (the first yr. of the Ed.B. course); D.P.H. (r yr. course) for legally qualified med. practitioners. *Certificates* of Proficiency in Engineering Science and in Mining Engin., 3 yrs.' courses, of which first yr. may be taken in Roy. Tech. Coll.; no prelim. examn.

The list of extra-academical teachers whose courses in certain subjects are recognized as qualifying pro tanto for graduation includes several resident outside the United Kingdom, namely, in Cape Town (in Nat. Philos., Chem., Bot., Zool.), Grahamstown (Physics, Chem., Bot., Zool.), Johannesburg (Zool. and Chem.), and Stellenbosch (Bot., Chem., Physics).

For detailed information regarding POST-GRADUATE study and research in any Faculty application should be made to the Dean. A Post-graduate *Medical* Assocn. organizes demonstrations for Med. Practitioners[; fee for series, Nov. to May, 3 gs.; programme obtainable from the Secy., P.-G. Med. Assocn., Dr. James Carslaw, 9 Woodside Terrace, Glasgow, C.3.

CLASS FEES (v. Carnegie Trust, p. 294). M.A. (Hons.), 60 gs.; LL.B., 40 gs.; B.L., 30 gs.; M.B., Ch.B., about £250 for 5 yrs. Combined M.A. and B.Sc., I12½ gs.

Scholarships for Graduates: about 76 of from £30 to £280 p.a., most of them open only to graduates of Glas. (For undergraduates there are 480, varying in value from £10 to £50 or more p.a., chiefly in the Faculty of Arts, in addition to Bursaries of from £5 to £25, awarded by the Provincial Committee for the training of teachers.) There are also 5 Foundations for res. scholarships and studentships.

Travelling for study or research is encouraged by: Bryce Mathematical Fellowship (£280 p.a. for 4 yrs.), Faulds Fellowship (£200), J. R. K. Law Scholarship (£100 p.a. for 2 yrs.) for Applied Science tenable at an approved Overseas University or other scientific institution in Canada, U.S.A., or France.

RESIDENCE. Two Halls of Residence for men—the Maclay Hall and the MacBrayne Hall; and two for women—Queen Margaret Hall and the Robertson Hall. Lodgings or board with private families with use of 2 rooms, generally obtainable in neighbourhood of the Univ., for from 35s. to 50s. per week. A few students' hostels or settlements, of limited accommodation, where the charges are lower, are run by private committees or bodies of students and graduates.

THE APPOINTMENTS COMMITTEE (for men and women). Secretary, Adviser of Studies Office, The Univ. The Mistress of Queen Margaret Coll. also receives notices of vacancies for women.

Societies. Glasgow Univ. Club, London. Hon. Secs.—A. Macphail, M.D., F.R.F.P.S., Pennagowan, Northwood, Middlesex; J. M'Clure, M.D., F.R.C.S., 62 Harley House, London, N.W.r. Glasgow Univ. Women Graduates' London Assn. Hon. Sec.—Miss L. Buist, M.A., 31 Birchington Road, Crouch End, London, N.8.

A STUDENT WELFARE COMMITTEE has been formed to raise funds for the provision of Hostels, increased Union accommodation, and the completion of the Athletic Ground. Grants have been received from the Univ. Grants Committee and the Carnegie Trust, and many donations have been received from private benefactors and other sources. In all  $c.\, £85,000$  has been raised.

UNIVERSITY EXTENSION. An Extra-mural Education Committee, equally representative of the Univ. and working-class organizations, is prepared to supply classes, short courses, and single lectures to groups of students in Glasgow and the West of Scotland, so far as its resources will permit; a compendium of classes and lectures for the session is obtainable from the Organizing Secy., W.E.A., 177 Hill Street, Garnethill, Glasgow, C.3. Fortnightly and occasional free public lectures by profs. and others during the winter session.

Publications. Calendar; Glasgow Univ. Magazine, weekly during winter session; Examn. Papers, Prelim. and Degree, 6d. per set; Annual Handbook for matriculated students; Handbook for Overseas students and graduates; History of the University of Glasgow (Coutts); Roll of Graduates (1726-1896) (Addison); Matriculation Albums (Addison).

# THE YEAR 1930-31

Benefactions. Inst. of Accountants and Actuaries, ann. prize of 10 gs. for Accountancy; Mrs. D. C. Andrew, endowmt. of £60 p.a. for the D. C. Andrew Research Fund in Physiol.; the late Dr. James Hutchison, Nottingham, residuary estate to the Med. Fac. with pref. for foundn. of bursaries; the late Rev. D. M. M'Lean of Oa, £800 for bursary; the late Rev. D. S. Maclennan of Laggan, £500 for bursary in Facs. of Arts and Div.; the late Mrs. Hornby Lewis, £10,000 for bursaries in mem. of her father the late Mr. James Reid Stewart; the Trustees of the late Dr. David Murray, £500 for the upkeep of his books presented to the Univ.; the late Lady Newlands, £500 less legacy duty for stained glass window in memorial chapel. Other offers of stained glass windows in the memorial chapel were received from: the Chancellor in memory of the late chancellor, the Earl of Rosebery and Midlothian; the late Prof. Barr in memory of his wife and son; the family of the late Prof. Robertson in memory of their father.

Honorary Degrees. D.D.—J. Fairley Daly, J. Hamiltan, Prof. J. W. Inglis, E. Macmillan, A. Maude Royden, Principal Sir George Adam Smith. LL.D.—Rt. Hon. J. Brown, Sir F. G. Hopkins, Prof. C. U. A. Kappers, J. A. M'Callum, His Grace the Duke of Montrose, P. E. More, Prof. Sir C. V. Raman.

DEATHS. Prof. J. H. Teacher, Em. Prof. A. Barr, Dr. A. E. Clapperton, Mr. James Connell, Mr. Robert Lamond, Dr. Gavin M'Callum.

RESIGNATIONS. Prof. John Glaister; Prof. D. J. Medley; Dr. D. F. Cappell, Lectr. in Path. Histol.

STUDENTS. Full-time: total, 5026 (men, 3425; women, 1601). Part-time: total, 380 (men, 356; women, 24).

DEGREES. M.A., 718; B.Sc., 184; M.B., Ch.B., 100; B.L., 23; LL.B., 23; Ed.B., 5; B.D., 4; Ph.D., 23; D.Litt., 1; M.D., 28; D.Sc., 4.

# THE ROYAL TECHNICAL COLLEGE, GLASGOW

[Affiliated to the University of Glasgow.]

Chairman of the Board of Governors—Robert Robertson, B.Sc., M.Inst.C.E.

Director-H. F. STOCKDALE, LL.D., F.R.S.E.

Tutor and Librarian-W. G. BURRELL, M.A.

Treasurer—J. S. Croft.

Secretary-A. MACKAY, F.C.I.S.

#### PROFESSORS, LECTURERS, ETC.

Architecture and Building

Hughes, T. H., F.R.I.B.A., F.S.I.,

A.R.C.A. Prof. and Dir. of Arch.

Studies.

Brown, T., A.R.I.B.A. Lectr. Smith, Wm. J., F.R.I.B.A. ,

Revel, J. D., A.R.C.A., R.P.S. Hon. Lectr. (Interior Decoration).

Bacteriology and Botany

Ellis, D., D.Sc. Lond., Ph.D. Marb. Prof. (Bact.) & Lectr. (Bot.).

Lloyd, Blodwen, M.Sc. Wales, Ph.D.

Lectr. (Bact.) and Asst. Lectr. (Bot.).

Leitch, J. M., B.Sc.

Asst. Lectr. (Bact.).

Chemistry, Technical Gray, T., D.Sc., LL.D., Ph.D.

Gray, T., D.Sc., LL.D., Ph.D.

Jena

Young Prof. and Dir. of

the Sch. of Chem. Cruikshanks, G. S., Ph.D. Leip.

Loveless, A. H., B.Sc. Lond., M.Sc. Lectr.

Buchanan, Walter J., A.R.T.C. Lectr. Chem., Inorg. and Analyt.

Caven, R. M., D.Sc. Lond. Prof.

Lecturers:

Sutherland, Maggie M. J., D.Sc. Cranston, J. A., D.Sc., A.I.C.

(Physical Chem.).

Duncan, J. G., F.I.C., A.R.T.C.

Gordon, P. F., Ph.D., F.I.C.

Crawford, A. B., B.Sc., Ph.D., A.R.T.C., A.I.C.

Deinrs.: Anderson, H. G. A., B.Sc.

Love, T., B.Sc. M'Lean, J., B.Sc.

Wright, W., B.Sc.

Topping, K. M., B.Sc.

Goodwin, H. W., B.Sc.

Chemistry, Organic Wilson, F. J., D.Sc. Edin., Ph.D.

Leip. Prof. Cumming, W. M., D.Sc. Lectr.

Hopper, I. V., B.Sc. Lond., Ph.D., A.R.C.S.I. Lectr.

Dyeing, Bleaching, etc.

Steven, A. B., B.Sc. Lond. Lectr.

Engineering, Civil

Moncur, G., B.Sc. Edin. Prot. Hunter, W., B.Sc. Lond., A.R.T.C. Lectr.

Thomson, G., M.A. Edin. (San. Eng.) Lectr.	Miller, Wm., B.Sc. Asst. Lectr. Hibberd, G., Ph.D., A.R.T.C.
Engineering, Electrical	Geology, Economic Demr.
Smith, S. Parker, D.Sc. Durh. Prof.	Edwards, E. J., M.Sc. Manc. and
Meade, F. E., M.I.E.E. Lectr.	Leeds Lectr.
Asst. Lectrs. and Demrs.:	Mathematics
Farrell, J. F. E., B.Sc.	Miller, J., M.A., D.Sc. Prof.
Shearer, G., B.Sc.	Paul, J. I., M.A., B.Sc. Lectr.
Say, M. G., Ph.D., M.Sc. Lond.	Geddes, S., M.A., B.Sc. Lectr.
Cowan, J. A., A.R.T.C.	Metallurgy
Shaw, Wm. R.	Prof.
McWhirter, H. R. S., B.Sc. Lond.	Macdougall, A. J. Lectr.
Engineering, Mechanical	Howat, D. D., B.Sc. Demr.
Mellanby, A. L., D.Sc. Durh.,	Metallurgical Chemistry [Lectr.
M.Sc. McG. Prof.	Hay, R., B.Sc, Ph.D., A.I.C.
Kerr, Wm., Ph.D., A.R.T.C.	Natural Philosophy
Assoc. Prof.	Muir, J., D.Sc., M.A. Camb.
Sinclair, J. H., M.Sc. Vict., B.Eng. Liv. Lectr.	Freeland Prof. M'Quistan, D. B., M.A., B.Sc.
Smith, J., B.Sc. Lectr.	Assoc. Prof.
Caldwell, P. S., A.R.T.C. Lectr.	Rankin, J. S., B.Sc., Ph.D.,
Ramsay, J., B.Sc. Lond. Lectr.	A.R.T.C. Lectr.
Sneeden, O., B.Sc., Ph.D. Lectr.	Asst. Lectrs. and Demrs.:
Asst. Lectrs. and Demrs.:	Symon, F. J., B.Sc.
Garrick, J. A., B.Sc.	Macaulay, J. M., B.Sc., Ph.D.,
Russell, R., B.Sc.	A.R.T.C.
Scott, A. W., B.Sc., Ph.D., A.R.T.C.	Strachan, J. G., M.A. Good, Wm., D.Sc., A.R.T.C.
M'Broom, H. L., B.Sc., A.R.T.C.	
Russell, R.	Naval Architecture
Shannon, J. F., A.R.T.C.	Gray, W. M., B.Sc. Lectr.
Moir, C. M., B.Sc. Lond.	Pharmacy and Pharmacog.
Laird, A. M., B.Sc., A.R.T.C.	Todd, J. P., Ph.D., Ph.C. Lectr.
Caldwell, J., B.Sc., A.R.T.C.,	Schorn, E. J., A.I.C., Ph.C.
Wh. Sch.	Asst. Lectr. Coutts, Jas., Ph.C. Demr.
Henry, H. N., B.Sc., A.R.T.C.	Maxwell, N. V., Ph.C. Demr.
Engineering, Mining	Textile Manufacture
Burns, D., M.I.Min.E. Prof.	Watson, W., F.T.I. Lectr.
Stevenson, J., B.Sc. Lectr.	2 Asst. Lectrs.
GENERAL INFORMATION	

#### GENERAL INFORMATION

Anderson's College, founded in 1796, the College of Science and Arts (1823, the first "Mechanics' Institution"), and the Atkinson Institution (1861) were amalgamated in 1886 under the title of the Glasgow and West of Scotland Technical College, which was changed in Feb. 1912 to the Royal Technical College. The College was affiliated to the Univ. of Glasgow in March 1913.

The College building, comprising over 7 acres of floor space, cost, with equipment, £400,000. Qualifying courses are provided in the subjects named above for Degrees of the Univ. in Applied Science and for the Diploma of the College. Courses in the following qualify for the Diploma only: Building, Naval Architecture, Textile Manufacture. There are also Departments of Navign. and Bakery, as well as numerous evening classes in other subjects, mainly technological. The courses for the Diploma cover 3 (in Chem. and Metall., 4) yrs.; for the Associateship in any of the Diploma subjects, attendance during 4 yrs. is required. The evening lecturers are not included in the above lists; some of their work is, however, of university and even post-graduate standard. Much research work, for the prosecution of which a development fund of over £80,000 has been raised, is carried on at the College. The library includes the Euing musical collection and the James Young collection of early alchemical, metallurgical, and chemical books.

The Glasgow School of Architecture is maintained by the College and the Glasgow School of Art working in co-operation through a Joint Committee under whose authority its Diplomas (5 yrs.' course) are issued.

The College has an athletic ground, and within the College buildings a

well-equipped gymnasium.

FEES for tuition: diploma, 25 gs. p.a.; degree, 90 gs. for course.

Publications. Calendar; Annual Report; Research Journal; Metallurgical Club Journal.

# THE YEAR 1930-31

Benefactions. The residue of the estate of the late Mr. John T. Gilchrist of Greenock, estimated at c. £20,000, for bursaries and research scholarships. £300 from the late Chairman of the Governors, Dr. James Mackenzie. £200 from the late Mr. William Marr, together with one-fourth (probably c. £850) of the residue of his estate. £250 from the late Mr. John Sandilands, and onesixth (probably c. £2500) of the residue of his estate. £2000 for the provision of a wind tunnel and additional donations of £436 towards new equipment for the Dept. of Metall. Grant of £1000 p.a. for 3 yrs. from the Bellahouston Trustees, for general purposes.

RESEARCH JOURNAL. The seventh number was issued, containing nineteen papers in Mathematics, Natural Philosophy, Mechanical Engineering, Electrical Engineering, Bacteriology and Bakery.

University Extension. 1973 part-time students of 21 years of age or over were in organized classes. 403 tickets were issued for the courses in Astronomy.

Students. Full-time: preparing for a first Degree or Diploma (excluding 27 attending major portion of time at Glasgow Univ.), 344; undertaking advanced work, 13. Part-time: preparing for a first Degree or Diploma, 413; undertaking advanced work, 23; occasional students, 1842; taking courses not of a Univ. standard, 1121.

DEGREES OBTAINED. Ph.D., 6; B.Sc. in Applied Science, 48; B.Sc. Lond., 5.

# UNIVERSITY OF ST. ANDREWS

- CHANCELLOR AND PRESIDENT OF THE GENERAL COUNCIL—The Rt. Hon. STANLEY BALDWIN, M.P., LL.D.
- VICE-CHANCELLOR AND PRINCIPAL OF THE UNIVERSITY AND OF THE UNITED COLLEGE—Sir JAMES COLQUHOUN IRVINE, C.B.E., D.C.L. Durh., LL.D. Glas., D.Sc. St. And., Liv. and Princet., Sc.D. Camb., Yale and Penn., Ph.D. Leip., F.R.S.
- RECTOR AND PRESIDENT OF THE UNIVERSITY COURT—Gen. The Rt. Hon. JAN CHRISTIAAN SMUTS, C.H., LL.D., K.C., F.R.S.
- DEANS OF FACULTIES. See under "General Information"—Faculties.

  SECRETARY AND REGISTRAR—ANDREW BENNETT.
- LIBRARIAN-GEORGE H. BUSHNELL.
- Principal of St. Mary's College—Very Rev. G. Galloway, M.A., D.Phil., D.D.
- PRINCIPAL OF UNIVERSITY COLLEGE, DUNDEE .....
- Advisers of Students at St. Andrews: in Arts—Prof. Webster; in Science—Prof. Herring; in Medicine—Prof. Waterston.
  - AT DUNDEE: IN ARTS AND SCIENCE—Prof. STEGGALL; IN MEDICINE—Prof. CHARTERIS.

#### UNIVERSITY COURT

PRESIDENT—THE RECTOR.

THE PRINCIPAL, ex officio.

THE PRINCIPALS OF ST. MARY'S

COLLEGE and UNIVERSITY

COLLEGE, DUNDEE, ex officio.

THE PROVOST OF ST. ANDREWS and THE LORD PROVOST OF DUNDEE, ex officio.

IAMES YOUNGER, LL.D.

WILLIAM LOW, O.B.E., LL.D.

A, MacGillivray, C.M., M.D. D.Sc.

J. M. DAWSON, M.A.

E. E. Morrison, M.A., LL.D.

A. LEIGHTON, M.A., B.Sc., LL.D.
Prof. D. WATERSTON, M.D.,
C.M.

Prof. D. Morrison, M.A.

Prof. A. D. Peacock, D.Sc., F.R.S.E.

SECY.—ANDREW BENNETT.

# PROFESSORS, LECTURERS, ETC.

Anatomy

Waterston, D., M.A., M.D., C.M. Edin. Bute Prof.

Dow, D. R., M.B., Ch.B., M.D., D.P.H. Prof.\* Kirkpatrick, H. J. Rodway, M.B., Ch.B., D.P.H.

Lectr. & Asst. (Regional A.). Skae, F. M. T., M.D., C.M. Asst.\* Harper, W. F., B.Sc., Ph.D.

Lectr. & Asst.\*

Auch malant as Wintows	Formanias - Dalitical From
Archæology, v. History	Economics, v. Political Econ.
Biology, v. Nat. Hist.	Education [Bell Prof.
Botany [Prof.	M'Clelland, W. W., M.A., B.Sc.,
Robertson, R. A., M.A., B.Sc.	B.Ed. (Dir. of Studies at the
Smith, Edith P., B.A., Ph.D.	Provincial Training College) Snodgrass, Neil S., M.A. (Admin.
Edin. Lectr.*	of Schs., etc.) Lectr.
Kean, Chrissy I., B.Sc. Asst.	· · · · · · · · · · · · · · · · · · ·
Chemistry	Engineering, Civ. and Mech.,
Read, J., M.A. Camb., B.Sc. Lond.,	and Drawing
Ph.D. Zür. (Dir. of Chem. Res.	Fulton, A. R., D.Sc. Prof.* Hay, J. M., B.Sc. Lectr.*
Lab.) Prof. Steele, Ettie S., M.A., B.Sc., Ph.D.	Hay, J. M., B.Sc. Lectr.* Steel, G. S., B.Sc. Lectr.*
Lectr. & Asst.	Dempster, D., B.Sc. Asst.*
M'Kenzie, Alex., M.A., D.Sc.,	Engineering, Electrical
Ph.D. Berl., F.R.S. Prof.*	Mackay, W. Morton, B.Sc. Lectr.*
Ross, J. D. McB., M.B.E., M.A.,	
D.Sc. Edin. Lectr. & Asst.*	English Lang. and Lit.
Robertson, G. J., M.A., B.Sc.,	Webster, A. Blyth, M.A., LL.D. Berry Prof. of E. Lit.
Ph.D. Lectr.	Clyde, W. M'C., Ph.D. Lectr.
Macdonald, J. Y., B.A., Ph.D.	Oakden, J. P., M.A., Ph.D. Lectr.
Lectr.	Soutar, G., M.A., D.Litt.
Roger, R., B.Sc., Ph.D. Lectr.*	Reader.*
Smith, Isobel A., M.A., B.Sc.,	Walker, W. A., M.A. Asst.*
Ph.D. Asst.*	French Lang. and Lit. and Rom.
Dewar, J., B.Sc. Asst.	Philol.
Classics	Lewis, C. B., B.A., L. ès L., Ph.D.
Rose, H. J., M.A. Ox. (Gk.) Prof.	Lectr.†
Tate, J., M.A. (Gk.) Lectr. & Asst.	Stewart, W. M'C., M.A. Lectr.
Dall, Mrs. A., M.A., Ph.D. Asst. Lindsay, W. M., M.A. Ox., LL.D.,	Dickinson, Gladys, M.A. Asst.†
Litt.D., Ph.D., F.B.A. (Hu-	Geology †
manity) Prof.	Innes, D. E. I., M.A. Reader.
Laidlaw, W. A., M.A. (Latin)	Walker, F., B.A., Ph.D. Lectr.
Lectr. & Asst.	Scott, James F., Ph.D. Glas. Asst.
Mitford, T. B., M.A. (Latin) Lectr.	Cumming, G. A., B.Sc., Ph.D.
Lorimer, W. L., M.A. (Latin)	Asst.
Reader.*	German and Teut. Philol.
Dentistry, v. infra	Carr, C. T., M.A. Lectr.
Divinity	Hayens, K., M.A., D.Litt. Lectr. Wardle, W. L., M.A. Asst.
Galloway, G., M.A., D.Phil., D.D.	•
Edin. Primarius Prof.	Hebrew and Oriental Langs.
Duncan, G. S., O.B.E., M.A., D.D.	Porteous, N. W., M.A., B.D. Prof.
(Bibl. Crit.) Prof.	
Baxter, J. H., M.A., B.D. (Ch.	History, American and Colonial Burn, W. L., B.A. Lectr.
Hist.) Prof.	History, Mediæval [Lectr.
Marett, R. R., D.Sc., LL.D. Gifford Lectr.	Baxter, J. H., M.A., B.D., D.Litt.
Ginord Lectr.	Danier, J. II., M.A., D.D., D.E.
* At Dundee. †	At St. Andrews and Dundee.

<sup>†</sup> At St. Andrews and Dundee.

History, Modern [Prof. Williams, J. W., M.A., B.Litt. Ox. Sellon, H. G. R., B.A. Ox. Law, Scots [Lectr.\* Allison, J., C.B.E., M.A., LL.B. Physics Law, Conveyancing Carlton, H. J., M.A., LL.B. Lectr.\* Logic and Metaphysics Stout, G. F., M.A. Camb., LL.D., F.B.A. Prof. Logic and Psychology Wright, J. N., M.A. Lectr.\* Mace, C. A., M.A. Lectr. & Asst. Wisdom, A. J. T. D., B.A. Lectr. Mathematics and Applied Maths. Turnbull, H. W., M.A. Reg. Prof. Steggall, J. E. A., M.A. Camb. Prof.\* Copson, E. T., M.A. Ox., D.Sc. Edin. Lectr. Simpson, Mary C., M.A. Asst.\* Timms, G., B.Sc., Ph.D. Asst. Guthrie, W. G., M.A. Asst. Asst.\* Brown, L. M., M.Sc. Medicine and Surgery, v. infra MusicSawyer, F., Mus.Bac. Lectr. Natural History 3 Instrs. Thompson, D'A. W., C.B., M.A., D.Litt., F.R.S. Prof. Bacteriology Peacock, A. D., M.Sc., D.Sc. Durh. Prof.\* Sutherland, Christina H., B.Sc. Sanderson, Ann R., B.Sc., Ph.D. Diseases of Children Asst. Philosophy, Moral, v. also Logic Thomson, Morrison, D., M.A. Prof. Asst. Philosophy, Natural Allen, H. S., M.A., D.Sc. (Dir. of Physics Res. Lab.) Lectr. & Asst. Bagot, J. C. Jack, D., M.A., B.Sc., Ph.D. Lectr. Arnot, F. L., B.Sc., Ph.D. Lectr.

Forrest, J., M.A., B.Sc., D.Sc. Lectr. & Asst.\* Smith, Winifred J., B.Sc. Asst.\* Smart, R., M.A. Asst.\* [Harris Prof.\* Peddie, W., D.Sc. Edin. Physiology [Chandos Prof. Herring, P. T., M.D. Edin. Hynd, Alex., M.A., D.Sc. Lectr. & Asst. Weston, F. M. Asst. Reid, E. W., B.A., M.B., Sc.D. Camb., F.R.S. Prof.\* Stiven, D., Ph.D., D.Sc. Asst.\* Political Economy Jack, D. T., M.A. Lectr. Psychology, v. Logic Pub. Health, v. Med.—Fevers Theology, v. Divinity Zoology, v. Nat. Hist. Medicine

(for subjects of first 2 yrs.—Anat., etc., v. supra)

Anæsthetics Mills, Arthur, M.D. Lectr.\*

Tulloch, W. J., O.B.E., M.D.D.P.H. Prof.\* Morton, W. H., M.B., Ch.B.

Research Asst.\*

Price, Prof. Ll. T. Lectr.\* M.B., Ι., Ch.B., F.R.C.S.E. Lectr.\*

Diseases, Mental Mackenzie, W. T., M.D. Lectr.\*

Diseases, Throat, Nose, and Ear Mathers, R. P., M.D. Lectr.\* Gibson, M. J., M.B., Ch.B., Clin. Tutor.\* F.R.C.S.E.

	33-
Diseases, Skin	Pathology
Milne, F. M., M.A., B.Sc., M.B.,	Cappell, D. F., M.D. Prof.*
Ch.B. Lectr.*	Tudhope, G. R., M.B., Ch.B.,
Fevers and Pub. Health	D.P.H., Ph.D.
Burgess, W. L., M.B., Ch.B., M.D.,	Asst. & Lectr.*
D.P.H., D.T.M. and H.	Montgomerie, G. L., M.D.
Reader*	Clin. Lectr.*
Leask, R. L., M.B., Ch.B., B.Sc.,	Radiology and Elec. Therap.
Ph.D., B.Sc. (Pub. Health)	Milln, G. H. S., M.B., Ch.B. Lectr.*
(Fevers) Asst.*	Surgery
Keay, D. M., M.B., Ch.B., D.P.H.	Price, Ll. T., M.B., C.M. Prof.*
(Fevers) Asst.*	
Dickson, Margaret S., M.B., Ch.B.	Surgery, Clinical
(Public Health) Asst.*	Anderson, J., M.B., Ch.B.,
Forensic Medicine	F.R.C.S. Edin. Lectr.*
Lectr.	Alexander, R. C., M.A., M.B.,
Materia Medica	F.R.C.S. Edin. Lectr.*
Charteris, F. J., M.D. Glas. Prof.*	Taylor, John, M.D., Ch.M. Tutor.*
Ames, Dorothy H. M., B.Sc., M.D.	Brown, F. R., M.B., Ch.B.,
Asst.*	F.R.C.S. Edin. Tutor.*
Medicine	Melville, R. S., M.B., Ch.B.,
Patrick, Adam, M.D. Glas. Prof.*	F.R.S.E. Tutor and Asst.*
Morgan, J. M'I., M.B., Ch.B.	Tuberculosis [Instr.*
	LI I II MD CLD DDII
Asst.*	Hunter, J. H., M.B., Ch.B., D.P.H.
Asst.*  Medicine, Clinical*	
Medicine, Clinical*	Venereal Diseases
Medicine, Clinical* Lectrs.:	
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A.	Venereal Diseases
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors:	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D.,	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P.,
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D.  Midwifery [Prof.*	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene  Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology Cassaday, E. E., M.B., Ch.B.,
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D. Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene  Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology  Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D. Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*  Dental Histology
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D. Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B. Asst. and Clin. Tutor.*	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene  Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology  Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D. Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B. Asst. and Clin. Tutor.* Chisholm, A. E., M.B., Ch.B.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*  Dental Histology
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D. Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B. Asst. and Clin. Tutor.* Chisholm, A. E., M.B., Ch.B. Clin. Tutor.*	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene  Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology  Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*  Dental Histology  Anderson, D. L., L.D.S. Lectr.*
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D.  Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B. Asst. and Clin. Tutor.* Chisholm, A. E., M.B., Ch.B. Clin. Tutor.* Ophthalmology	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*  Dental Histology Anderson, D. L., L.D.S. Lectr.*  Dental Mechanics Bruce, J., L.D.S. Lectr.*
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D.  Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B. Asst. and Clin. Tutor.* Chisholm, A. E., M.B., Ch.B. Clin. Tutor.* Ophthalmology M'Gillivray, A., C.M., M.D. Aberd.,	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*  Dental Histology Anderson, D. L., L.D.S. Lectr.*  Dental Mechanics Bruce, J., L.D.S. Lectr.*  Dental Metallurgy
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D. Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B. Asst. and Clin. Tutor.* Chisholm, A. E., M.B., Ch.B. Clin. Tutor.* Ophthalmology M'Gillivray, A., C.M., M.D. Aberd., D.Sc. Reader.*	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*  Dental Histology Anderson, D. L., L.D.S. Lectr.*  Dental Mechanics Bruce, J., L.D.S. Lectr.*  Dental Metallurgy Lamond, D. C., L.D.S., R.C.S.E.
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D. Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B. Clin. Tutor.* Chisholm, A. E., M.B., Ch.B. Clin. Tutor.* Ophthalmology M'Gillivray, A., C.M., M.D. Aberd., D.Sc. Reader.* M'Gillivray, A. M., M.B., Ch.B.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*  Dental Histology Anderson, D. L., L.D.S. Lectr.*  Dental Mechanics Bruce, J., L.D.S. Lectr.*  Dental Metallurgy Lamond, D. C., L.D.S., R.C.S.E. Lectr.*
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D. Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B. Asst. and Clin. Tutor.* Chisholm, A. E., M.B., Ch.B. Clin. Tutor.* Ophthalmology M'Gillivray, A., C.M., M.D. Aberd., D.Sc. Reader.* M'Gillivray, A. M., M.B., Ch.B. D.O.M.S., M.D. Clin. Lectr.*	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*  Dental Histology Anderson, D. L., L.D.S. Lectr.*  Dental Mechanics Bruce, J., L.D.S. Lectr.*  Dental Metallurgy Lamond, D. C., L.D.S., R.C.S.E. Lectr.*  Dental Materia Medica
Medicine, Clinical* Lectrs.: Charteris, Prof. F. J. Patrick, Prof. A. Foggie, W. E., D.S.O., M.A., M.D. Tutors: Stalker, J. M., M.B., Ch.B. Morgan, J. M'I., M.C., M.D., D.P.H., M.R.C.P.E. Macklin, A. H., M.D. Midwifery [Prof.* M'Gibbon, John, M.B., Ch.B. Edin. Fairlie, Margaret, M.B., Ch.B. Clin. Tutor.* Chisholm, A. E., M.B., Ch.B. Clin. Tutor.* Ophthalmology M'Gillivray, A., C.M., M.D. Aberd., D.Sc. Reader.* M'Gillivray, A. M., M.B., Ch.B.	Venereal Diseases Averill, C., M.B., Ch.B. Instr.*  Dentistry  Dental Anat. and Physiol. and Oral Hygiene Campbell, H. G., L.R.C.P., L.R.C.S., L.D.S. Lectr.*  Dental Bacteriology Cassaday, E. E., M.B., Ch.B., D.P.H., L.D.S. Lectr.*  Dental Histology Anderson, D. L., L.D.S. Lectr.*  Dental Mechanics Bruce, J., L.D.S. Lectr.*  Dental Metallurgy Lamond, D. C., L.D.S., R.C.S.E. Lectr.*

Dental Surgery and Pathology
Tattersall, W. R., L.D.S. Lectr.\*

Operative Dental Surgery
Petrie, J. M., L.D.S. Lectr.\*

Orthodontia
Campbell, W. G., M.B., C.M.,

L.D.S., D.D.S. Lectr.\*

\* At Dundee

# GENERAL INFORMATION, v. also pp. 289 ff.

The University was founded in 1411. In 1747 St. Salvator's (1450) and St. Leonard's (1512) Colleges were united under the name "United College of St. Salvator and St. Leonard." St. Mary's College (1537) has, since 1579, been restricted to the teaching of Theology. University College, Dundee (1880), was affiliated to and made to form part of the University in 1897.

LIBRARY: 250,000 printed vols. (some of 15th and 16th centuries). MSS. include fine Persian specimens and large folio Antiphonarium. College Library at Dundee. Museums at St. Andrews—Anat., Anthrop., Ethnol., Geol., Mineral., Nat. Hist.; at Dundee—Geol., Med., Nat. Hist. LABORATORIES at St. Andrews—in all above depts. except Med., also Chem. (with special Research lab.), Marine, Physics, Physiol., Bot. Garden. At Dundee—Anat., Bact., Chem., Embryol., Engin. (Elec., Hydraulic, Mech.), Mat. Med., Maths., Nat. Hist., Physics, Physiol.

FACULTIES. Divinity, Arts, Science, Medicine. Deans: Principal Galloway, Prof. Blyth Webster (English), Prof. Herring (Physiology), Prof. Charteris (Materia Med.).

Admission, v. Appendix XX.

Degrees, etc., v. also pp. 291 ff. Courses for graduation in Arts and Science are given both in the United Coll., St. And., and in Univ. Coll., Dundee, some being given in both places, some—Greek, Hebrew, Hist., Moral Philos., Pol. Econ.—only in St. And., some—Engineering—only in Dundee; Medical, after the first two yrs., and Dental solely, in Dundee, where facilities for clinical instruction are available. Here also are provided courses in Scots Law and Conveyancing. Associated with the Univ. is the Dundee School of Social Study and Training.

The M.A. Course includes a General and a Special examn. The former, which must be completed before proceeding to the Special, embraces at least 5 subjects, of which Latin or Greek must be one, another must be either Maths. or Philos., at least two must be linguistic, and at least one scientific. Senatus can, on recommendation of the Fac. of Arts, allow another subject or subjects to be taken in lieu of Lat. or Greek. Foreign students may take Arabic or Hebrew in lieu of Latin or Greek. In the Special examn. two cognate subjects must be taken, the whole examn. being passed at one time.

The B.Sc. Ordinary degree in Pure Science involves a 3 yrs.' course, embracing at least 4 subjects with a 1st examn. (4 subjects) and a 2nd (2 subjects); the Honours degree involves a 4 yrs.' course (the last year being devoted exclusively to advanced study in the Hons. subject) with 2 examns.—a 1st in 4 subjects and an Honours in one.

Diplomas: Education, for graduates who complete the first year of the Ed.B. course; D.P.H., 12 months; L.D.S., 4 yrs.; D.P.D., 5 mos. after obtaining registrable Dental qualification; Social Study, 2 yrs. after obtaining M.A. or B.Sc. Certificate in Social Study for non-graduates over 21 with good general educn., 2 yrs.

FEES for Tuition (v. Carnegie Trust, p. 294). M.A., £47: 5s.; Hons. M.A.,

\$\frac{63}\$; B.Sc., \$\frac{80}\$; B.Sc. (Engineering), 90 gs.; B.Sc. Hons., 90 gs.; M.B., Ch.B., \$\frac{1}{2}182\$. Combined Courses: M.A. and B.Sc., \$\text{12\frac{1}{2}}\$ gs.; M.A. and M.B., Ch.B., \$\frac{1}{2}208\$; M.A., B.Sc., and M.B., Ch.B., \$\frac{1}{2}208\$; B.Sc. and M.B., Ch.B., \$\frac{1}{2}208\$; T.D.S., \$\frac{1}{2}88\$: 10s.; M.B., Ch.B., and L.D.S., \$\frac{1}{2}208\$; 7s.; D.P.D., \$\frac{1}{2}5\$; D.P.H., \$\frac{1}{3}1\$: 10s. The above do not include fees for hospl. ticket or cases of labour, or laboratory fees for use of apparatus, etc. Maximum fee for Research students, 5 gs. a term. Degree fees for M.D. or Ch.M., 20 gs.; D.Litt. or D.Sc., 15 gs.; Ph.D., L.D.S., or D.P.H., 10 gs.; B.Phill. or B.Litt., 6 gs.; D.P.D., 5 gs. Dipl. or Certif. in Social Study, 4 gs. Dipl. in Educ., \$\frac{1}{2}4\$: 14:6.

RESIDENCE. University Hall, Kinnessburn, Afton and Chattan House for Women (Warden) at St. Andrews, £66 and upwards p.a., excl. of tuition fees. Hostel for women students, Dundee (Warden), £62: ros. p.a. St. Salvator's Hall and Deanscourt for men (Warden) at St. Andrews, £57 p.a. and upwards, excl. of tuition fees.

Scholarships for Graduates, v. also p. 293: 14, annual value about £1711. Scholarships tenable in other countries: Guthrie (£135 p.a. for 4 yrs.), tenable at Oxford or Cambridge or (with special permission) at a foreign Univ.; Ramsay (£150 p.a. for 2 yrs.), Bruce (£150 p.a. for 2 yrs.), and Berry (£160 p.a. for 2 yrs.) may, with permission of United College, be tenable in another Univ. or Institution.

University Appointments Board. Secretary-D. J. L. Ritchie, B.L.

An Alumnus Association was founded in 1926. St. Andrew's Univ. Club, London, founded 1904. Hon. Sec.—W. C. Dickinson, M.A., Ph.D., D.Litt., London School of Economics, W.C.2. London Association of St. Andrew's Univ. Women, founded 1926. Sec.—Miss C. J. Paterson, B.Sc., 161 Tube Hill, London, S.W.2.

Publications. Calendar (Sept.). 3s. 6d.; U. Coll. Dundee, Calendar, 6d.; Students' Repve. Council's College Echoes (St. And.) and The College (Dundee); Alumnus Association's Chronicle (half-yearly).

# THE YEAR 1930-31

Benefactions. Grants by Carnegie Trust for the Univs. of Scotland for 5 yrs., 1930–35, £43,000; Gift by Mrs. Lawson of £200 to endow Lawson Prize in Hons. Engl. Class, United College; from William Low, Esq., O.B.E., LL.D., £2500 to endow "Low Residential Entrance Scholarship"; subscribers to Kay Memorial Fund, £685: 18:7 for Kay Bursary Fund, etc.; numerous gifts of MSS. and Books to Univ. Library; Communion Cup from students to Univ. Chapel; gift of Silver Mether by Viscountess Esher; drawings by Nansen, presented by his children and by Dr. Russell; bequest by the late Prof. M'Intosh of dwelling-houses in Abbotsford Crescent, St. Andrews, for Residence Hall, and of Books, Medals, Arms, etc.; £150 to the Chem. Dept. in aid of Research, from Imperial Chemical Industries, Ltd.

New Buildings. Repair and restoration of St. Mary's Coll. buildings; repair and extension of Deanscourt Residence for men students; reconstruction of Botanic Garden; commencement of building for Geology and Botany Depts., United Coll.; New Lecture Theatre for Natural History Dept., and addition to accommodation of Anatomy Dept., St. Andrews, completed.

 $\mbox{New Posts.}$  Lectureship in Radiol., Lectureship in Exp. Psychol., two Clinical Tutorships in Gynæcol.

RELATIONS WITH OTHER INSTITUTIONS. Exchange of students with German Univs. through medium of Anglo-German Academic Bureau. Inter-

change of Profs. of Chemistry with Univ. of Basel, Switzerland, for short courses of lectures in Chemistry.

Deaths. Rev. Alexander Reid Gordon, Prof. of Hebrew and Oriental Langs.; Dr. David Lennox, Reader in Forensic Med.; William Carmichael McIntosh, Emer. Prof. of Nat. Hist.; W. G. Robson (Nat. Philos.), Emer. Prof. I. A. C. Kynoch (Midwifery).

RESIGNATIONS. F. M. Milne (Clin. Pathol.); J. D. Craig (Latin); E. T. Copson, Warden of St. Salvator's Hall; James Craigie (Bacteriol.); F. B. A. Welch (Geol.); R. A. R. Gresson (Nat. Hist.); Annie Fulton (Ven. Dis.); T. L. McEwan (Bacteriol.); A. Douglas (Fevers).

Honorary Degrees. D.D.—Rev. J. Caesar, Rev. J. Haire, Rev. J. McConnachie, Rev. A. Nairne. LL.D.—Prof. J. A. C. Kynoch, J. E. Cox, Sir J. H. Jeans, Dame Laura Knight, Prof. G. M. Robertson, The Rev. Alfred Young.

STUDENTS. Full-time: total, 799; research, 37; preparing for a first degree, 743; diploma students, 19. Part-time: total, 132; research, 22; diploma, 54; occasional, 56. Extra-mural classes: Railway operating, 33; courses of lectures were conducted in 16 centres: 1700 enrolments.

DEGREES. M.A., 99; B.Sc., 41; B.D., 7; Ph.D., 4; B.Phil., 1; B.Litt., 2; M.D., 6; Ch.M., 1; M.B., Ch.B., 25; D.P.H., 7; L.D.S., 3; D.P.D., 1; Dipl. in Education, 18; Honours granted subsequent to graduation: Arts, 14; Science, 9.

# THE QUEEN'S UNIVERSITY OF BELFAST

VISITOR-H.M. THE KING.

CHANCELLOR—The Most Honourable The Marquess of Londonderry, K.G., P.C., M.V.O., LL.D.

Pro-Chancellors—Sir Wm. Whitla, M.A., M.D., LL.D., D.Sc.; The Rt. Hon. Lord Justice Andrews, B.A.; Col. T. Sinclair, C.B., M.D., M.Ch., F.R.C.S. Eng., M.P.

PRESIDENT AND VICE-CHANCELLOR—Sir R. W. LIVINGSTONE, M.A. Ox., D.Lit.

REPRESENTATIVE IN THE PARLIAMENT OF THE UNITED KINGDOM—Col. T. SINCLAIR, C.B., M.D., F.R.C.S. Eng.; IN PARLIAMENT OF NORTHERN IRELAND—Rev. Prof. R. Corkey, M.A., Ph.D.; Prof. R. J. Johnstone, B.A., M.B., F.R.C.S.; R. N. M'NEILL, B.A., LL.B.; J. H. ROBB, B.A., K.C.

REGISTRAR—GREGG WILSON, O.B.E., M.A., Ph.D., D.Sc.

Hon. Treasurer-Major D. G. Shillington, D.L., M.P.

LIBRARIAN—KENNETH POVEY, M.A.

SECRETARY—ANDREW PICKEN, B.A., LL.B., B.L.

SECRETARY OF ACADEMIC COUNCIL—Prof. R. M. HENRY, M.A.

BURSAR-JOHN GREEN, C.A.

Accounting, v. Comm.

Agriculture, v. infra

Bio-Chemistry

CHAIRMAN OF CONVOCATION—The Rt. Hon. Mr. JUSTICE BROWN, B.A.

# PROFESSORS, LECTURERS, ETC.

Anatomy Walmsley, T., M.D. Glas. Prof. Hunter, R. H., M.D., M.Ch., Ph.D. Lectr. Malcolm, H. P., M.B., M.Ch. Lectr. Baxter, J. S., M.B., B.Sc. Asst. Boyd, J. D., M.B., B.Sc. Asst. Hall, H. P., M.B. Pt.-time Asst. Archæology and Ancient History Davies, O., B.A. Ox. Lectr.

Milroy, J. A., M.A., M.D. Edin. "J. C. White" Prof. Andrews, S., M.D., B.Sc.
" J. C. White" Lectr.
Beattie, Florence J. R., M.Sc.

Jr. Lectr. Loughridge, J. S., M.D., F.R.C.S. (Bio-Phys.) Asst.

Botany

Small, J., D.Sc. Lond. Prof. Lynn, Mary J., M.Sc. Lectr. Chambers, E. M., B.Sc. Demr. Kertland M.P. H. M.Sc.

Kertland, M. P. H., M.Sc. Hon. Herbarium Asst.

Celtic

O'Brien, M., M.A., Ph.D. Lectr.

Chemistry

Stewart, A. W., D.Sc. Glas. Prof

Marsh, J. K., D.Sc. Jr. Lectr. Capper, N. C., D.Sc. Asst. Canning, Georgina E., M.Sc. Asst. Chemistry, Organic Graham, Hugh, D.Sc. Reader. Classics	French and Romance Philology Savory, D. L., M.A. Ox., O.A., O.I.P. Prof. Johnson, Elsie, M.A., D. de l'U. Paris Asst. Bourdy, Hélène M., Ag. de L. Asst.
McElderry, R. K., M.A.  (Greek). Prof. Henry, R. M., M.A. (Latin) Prof. Latham, R. E., B.A. Ox. Asst.	French, Mediæval Arnold, I. D. O., Dr. de l'U. Stras. Lectr. Geography
Commerce. Meredith, H. O., O.B.E., M.A. Camb., M.Com. Manc.	Evans, É. É., M.A. Lectr.  Geology
Dean of Fac., Lectr. in C. and Prof. of Econ.	Charlesworth, J. K., D.Sc. Leeds, Ph.D. Bres. Prof. Hartley, J. J., M.Sc., M.Eng.
Recognized Teachers in the Munic. Coll. of Tech.: Dodd, F. T. Lloyd, M.A., D.Sc. Prof.	Jr. Lectr.  German  Williams, R. A., Ph.D. Leip., D.Litt. Dub. Prof
Montgomery, J., B.Com.Sc. (Accounting).	Beare, Mary, M.A., Ph.D. Asst.
Wray, D. C., LL.D. (Coml. Law).	History, Ancient, v. Archæol.
Dunne, T. J., B.Com.Sc. (Econ., Geog., and Business Methods).	History, Economic, and Polit. Sc. Lemberger, J., M.A. Ox. Lectr.
Sueyras, M. (Spanish). Carson, J. H. A., M.A. (Maths.).	History, Mediæval Betts, R. R., B.A. Lectr.
Dentistry, v. infra  Economics, v. Agric. Econ.,  Comm., Hist.	History, Modern [Prof. Todd, J. E., M.A. Ox. and Edin. Ketelbey, Doris M., M.A. Asst.
Education M'Callister, W. J., M.A., B.Sc. Prof.	Law Baxter, J. S., M.A., LL.D. Dub.,
Curran, A. M., B.A. Asst.	K.C. (Dean of Faculty) Prof. Curran, L. E., B.A., LL.B. Lectr.
Engineering, Civil Hummel, F. H., M.Sc. Birm. Prof. Finnan, E., M.Sc. Lectr. Cassie, W. F., B.Sc., Ph.D. Asst.	Special Lecturers: MacDermott, J. C., B.A., LL.B. McKean, E. J., M.A., K.C.
English Language Belfour, A. O., M.A. Ox. Reader.	Logic and Metaphysics Macbeath, A., M.A. Glas. Prof.
English Literature Baxter, F. W., M.A. Ox. White, H. M. O., M.A. Lectr.	Mathematics Semple, J. G., M.A., Ph.D. Camb. Prof. Cooper, R., M.A., Ph.D. Lectr.
Curgenven, J. P., B.A. Asst.  Fine Arts (Poetry)	Killeen, A. K., B.A. Asst.
Abercrombie, Lascelles, M.A., D.Lit. (for 1931–32) Lectr.	Music Brennan, C. J., Mus.Bac. Lectr.

Houston, J., M.Sc.

Philosophy, Moral, and History

Agr. Chemistry
Baskett, R. G., M.Sc.

Dickinson, F., B.Sc.

Ir. Lectr.

of Philos. Baird, J. C., B.Sc., B.Agr. Asst. de Selincourt, O., M.A. Ox. Lectr. Common, R. H., B.Sc., M.Agr. Asst. Philosophy, Scholastic Prentice, J. H., B.Sc., B.Agr. Ryan, Rev. A. H., B.A., D.D., Asst. Ph.D. Lectr. Agr. Economics PhysicsHarkness, D. A. E., M.A. Lectr. Morton, W. B., M.A. Camb. Prof. Agr. Zoology Emeléus, K. G., M.A., Ph.D. Chamberlain, R., B.Sc. Lectr. Lectr. Animal Hygiene and DairvGreeves, F. D., M.Sc. Sr. Demr. Bacteriology Smyth, H. T., B.Sc. Jr. Demr. Lamont, H. G., M.Sc., M.R.C.V.S. Beck, Louise, M.Sc. Hon. Demr. Lectr. " Musgrave" Demrs.: Assts.: Gregg, A. H., B.Sc. Kerr, W. R., M.R.C.V.S. Quinlivan, M. H., B.Sc. Shanks, P. L., M.R.C.V.S. Physiology Clerkin, P., B.Agr.Sc. Milroy, T. H., M.D., B.Sc. Edin., Kyle, R. S., M.R.C.V.S. LL.D., F.R.S.E. Prof. Crop and Animal Husbandry Lyle, W. F., M.B., B.Sc. Demr. Rae, R., B.Agr. Lectr. Strain, R. W. M., M.B., B.Sc. Hale, R. W., B.Sc. Asst. Demr. Rankin, J. C., M.D.. Hon. Demr. Medicine Spanish Llubera, I. G., M.A., D.Litt. Mad. (for subjects of first 2 yrs.—Anat., Prof. etc., v. supra) Crews, Cynthia, M.A., Ph.D. Asst. Bacteriology Technology, v. infra Graham, N. C., M.B., D.P.H. " J. C. White " Lectr. Zoology Bartley, Eileen O., M.D. Asst. Flynn, T. T., D.Sc. Prof. Williams, G., M.Sc. Demr. Gynæcology Johnstone, R. J., B.A., M.B., F.R.C.S. Eng. Prof. Agriculture Lowry, H. C., M.B., F.R.C.S. Agr. Botany and Plant Diseases Edin. Asst. Mercer, S. P., B.Sc. (Dean of Fac.) Hygiene, v. Pub. Health and Prof. San. Science Muskett, A. E., M.Sc., A.R.C.S. Lectr. Materia Med. and Therapeutics Cairns, H., B.Sc., M.Agr. Asst. Allen, F. M., M.D., M.R.C.P. Lectr. Linehan, P. A., B.Agr.Sc. Asst. Medical Jurisprudence Seaton, I. W., B.Sc. The Prof. of Pathology Lectr. (Plant Genetics) Lectr. Houston, Sir Thomas, B.A., M.D. Wilson, E. V. B., B.Sc. Asst. Lectr.

Medicine

Thomson, W. W. D., B.A., M.D.,

B.Sc., D.P.H., F.R.C.P. Prof.

Lectr.

Lectr.

Anat.

Eng.

Surgery, Oper., and Applied

Lectr.

Crymble, P. T., M.B., F.R C.S.

2 Clinical Lectrs.

Davison, J. C., M.D., B.Sc. Asst.

Midwifery and Infantile Diseases

Lowry, C. G., M.D., F.R.C.S. Prof.

Vaccination [Teacher. Bassett, W. W., M.B. Tutor. Armstrong, S. R., O.B E., M.B. Carson, W., M.D. Hon. Demr. McAfee, C. H. G., M.B., F.R.C.S. Hon. Demr. Dentistry 1 Clinical Lectr. Hunter, W. M., L.D.S. Edin. Ophthalm. and Otology Lectr. Lectr. (Metallurgy) Craig, J. A., M.B., F.R.C.S. Eng. Elwood, H., L.D.S. Edin. and 2 Clinical Lectrs. Penn. (Mechanics) Lectr. Swan, W. M., L.D.S., R.C.S. Eng. Pathology (Surgery) Lectr. Young, J. S., M.A., B.Sc., M.D. McKeag, H. T. A., B.D.S., B.A. Musgrave Prof. Dub. (Orthod.) Lectr. Houston, Sir Thomas, B.A., M.D. Fielden, V. G. L., M.D., Ph.C. (Clin. Bacteriol. and Hæmatol.) (Mat. Med.) Lectr. McComb, C. H., L.D.S. (Radio-Haslett, T. B. H., M.B. graphy) Lectr. Hon. Lectr. Geddes, S., M.B. (Anæsthetics) Corkey, A., M.B. Riddell Demr. Lectr. Pharmacology Extra-Mural Studies Mayrs, E. B. C., M.D. Prof. Eason, H. J., B.Sc. Lectr. & Dir. Crozier, T. H., M.D. Asst. Technology Pharmacy [Lectr. Fielden, V. G. L., M.D., Ph.C. (v. also Agr. and Engin.) Extra - Mural Staff (Hon.), being Public Health Profs. and Lectrs. at the Wilson, W. J., B.A., M.D., D.Sc., Munic. Coll. of Tech. D.P.H. Prof. Architecture Thomson, C. S., M.D., D.P.H. Beaumont, I., A.R.C.A. Prof. (Administration) Lectr. Building Construction Blair, E. Maude McV., M.Sc., Hampshire, T. R. Ph.D. Lectr. Asst. Chemical Technology Sanitary Science Wren, H., M.A., D.Sc., Ph.D. Prof. Wilson, Prof. W. J. Prof. Still, C. J., M.Sc., Ph.D., A.I.C. Totton, J. H., B.A., B.Sc. (P.H. Lectr. Lectr. Chem.) Hughes, K. R., B.A. Lectr. I Demr. Electrical Engineering and Physics Surgery Fullerton, A., C.B., C.M.G., M.D., Burns, P. L., B.Sc. Prof. (Elec. E.). M.Ch., F.R.C.S.I., F.A.C.S. . Prof. Yeates, J. F., B.Sc. Lectr. Woodside, C. J. A., M.B. Asst. Allen, T. P., M.Sc. Lectr. 2 Clinical Lectrs. Crowley, T. A., B.Sc. Lectr.

Mathematics
Earls, J., B.A. (Principal) Prof.
Murphy, J. J. F., B.Sc. Lond.
Lectr.

Mechanical Engineering [Prof. Smith, J. H., D.Sc., A.R.C.S.

Warnock, F. V., B.Sc., Ph.D., A.R.C.S. Lectr. Sandham, B., B.E. (Nav. Archit.) Lectr.

Textile Industries
Bradbury, F., B.Sc. Prof.

#### RECOGNIZED COLLEGES AND TEACHERS

MUNICIPAL COLLEGE OF TECHNOLOGY, BELFAST, v. supra—Commerce and Tech. The complete course for the B.Sc. in Engineering or in Textile Technology may be taken at this college.

#### GENERAL INFORMATION

Queen's College, incorporated in 1849, was dissolved in 1909 on the constitution of the Queen's University of Belfast.

LIBRARY, 111,000 vols. MUSEUMS: Class. Archæol., Nat. Hist., Medical, Materia Medica. Laboratories: Chemistry ("Donald Currie"), Engineering ("Harland"), Physiology ("Jaffé"), Pathology and Bacteriology ("Musgrave"), Bio-Chemistry and Bacteriology ("White"), Physics, Anat., Bot., Geol., Pharm., Zool., Agric. Hospitals available for Clinics: 3 general, 10 special (Fever, Maternity, Women, Children, Ophth., Eye, Ear and Throat, Consumption, Lunacy, Skin).

FACULTIES. (1) Arts (including Music), (2) Science (including Civil Engin.), (3) Law, (4) Medicine (including Dentistry), (5) Commerce, (6) Applied Science and Technology, (7) Agriculture, (8) Theology. Deans of Faculties: Profs. (1) A. Macbeath (Arts), (2) J. Small (Science), (3) J. S. Baxter (Law), (4) W. J. Wilson (Med.), (5) H. O. Meredith (Commerce), (6) F. H. Hummel (App. Science), (7) S. P. Mercer (Agric.), (8) R. K. M'Elderry (Theol.).

DEGREE COURSES. 3 yrs.—B.A., B Sc., B.Sc. in Engin. or Textile Tech., LL.B., B.Com.Sc.; 4 yrs.—B. Agr., B.D.S.; 5 yrs. (of which 2 may be in other approved Univs. or Med. Schools)—M.B., B.Ch., B.A.O.; 2 yrs.—LL.B. course and B.D. course for graduates of this or another Univ.

The courses in Elec. and Mech. Engin. are taken in the Municipal College of Tech. 3 yrs.' day or 5 yrs.' evening classes in the M.C.T. qualify for B.Sc. in Tech. 3 yrs.' day or 5 yrs.' evening classes in the M.C.T. qualify for the B.Com.Sc. Evening classes in a subject do not qualify for the B.Sc. or B.Com.Sc. unless the candidate has concurrent day-time employment in some technical or commercial branch of the same subject.

Diplomas. Educn. (I or 2 yrs.); Higher Dipl. in Educn. (for grads.), I yr.; Public Health (for grads. in Med.), 2 yrs.; Lic. in Dent. Surg., 4 yrs.; Dipl. in Psych. Med. (for grads. in Med.), I yr.

HIGHER DEGREES. The M.A. may be taken by a B.A. I yr. after graduation (examn. or thesis or independent research). The (1) D.Lit. and (2) LL.D. are conferred on grads. of this Univ. distinguished in (1) letters, or in literary, philos., or hist. research, or (2) Law, or in legal or hist. research; they may be obtained by thesis also. The M.Sc. is open to a B.Sc. of the Univ. and grads. of other Univs. holding a degree of similar rank not less than I yr. after graduation (thesis or independent research). The D.Sc. is open to grads. of this Univ. 3 yrs. after graduation in any faculty. It is conferred for research or scientific work in relation to Science pure or applied, or for

distinction in Science, Engin., or other practical application of Science. The M.D., M.Ch., and M.A.O. are open to grads. in Med. of 3 yrs.' (if also grads. in Arts or Science, 2 yrs.' standing) by examn. or thesis. The M.Agr. may be conferred on a B.Agr. of the Univ. or a graduate admitted ad eund. after 2 yrs., for a thesis or independent research. The D.D. is open to grads. in Divinity of this Univ. of at least 6 yrs.' standing. As regards Ph.D. see p. 18.

FEES. Enrolment (annual), f3: ros. Class fees, annual (inclusive)—Arts, 11 gs.; Engineering, 21 gs.; B.Com.Sc., 11 gs.; Dipl. Educn. (2 yrs.), 12 gs.;

M.B., B.Ch., 25 gs.; B.Sc. or B.Agr., 22 gs.

SCHOLARSHIPS, ETC., FOR GRADUATES of the Univ. Studentships of £50: 5 in Arts, which may be raised by £25 and continued for a 2nd yr.; 4 in Science. Special grants to Med. graduates for original research or clin. study. Mackay Wilson Travelling Med. Schol'p, £100. Musgrave Studentships in Path., Physiol., Physics, Biol., and Chem., v. App. xxiii. 17. Four other Studentships of the aggregate annual value of £330.

RESIDENCE. Women's Hostel. Board and residence per annum, about £52. Board and lodging obtainable in the town from about 30s. a week

upwards.

APPOINTMENTS COMMITTEE. Chairman, The Vice-Chancellor.

Associations. A Queen's Univ. Associ. has been formed, Secs., Major Geo. Thomson, D.S.O., Parliament Buildings, Belfast, and Dr. R. H. Hunter, Queen's University, Belfast.

There is also a Queen's University Club which meets in London. Secy.,

R. L. Rea, M.D., F.R.C.S., 101 Harley St., London, W.

RECOGNITION OF OTHER UNIVS. Students from other approved Univs. may apply for exemption from a year's attendance for first degree, attendance and examn. in some of the subjects for first degrees in Arts and Science, in consideration of equivalent courses and examns. elsewhere.

University Extension lectures by members of the Univ. Staff are given

in Belfast and other towns.

Publications. Calendar (Oct.), 2s.; Students' mag, The Northman.

# THE YEAR 1930-31

BENEFACTIONS. From the Pilgrim Trust, £10,000 "for the benefit of the youth of Ulster" towards extension of the Students' Union. Travelling Scholarship for Women Students in 1930-31 from the Alpha Club, Belfast. Increased grant from the City of Belfast Corporation.

New Developments. New Lectureships in Engl. Lit., Maths., Bot., and Civ. Engin. Part-time Lectureship in Infant Hyg. and Diseases of Children. Assistantship in Bio-Physics. Hons. School in Geog., Econ. Hist., and Econ.

RETIREMENT AND RESIGNATIONS. Prof. Gregg Wilson (Zool.). Col. T. Sinclair (Registrar), on appointment as Pro-Chancellor. Prof. A. M. Drennan (Pathol.), on appointment to Chair of Pathol. in Edinburgh. Dr. G. R. Potter (Med. Hist.), on appointment to Chair of Mod. Hist. in Sheffield.

Honorary Degrees. LL.D.—Rt. Hon. R. B. Bennett, Prime Minister of Canada; Rt. Hon. G. W. Forbes, Prime Minister of New Zealand; Rt. Hon. J. H. Scullin, Prime Minister of Australia. D.Litt.—W. J. Lawrence. D.Sc.—Prof. Joseph Barcroft, Prof. Dame Louise McIlroy. D.D.—Rt. Rev. J. G. Paton. M.A.—I. J. Marshall. M. Com. Sc.—W. D. Cousins

Paton. M.A.—J. J. Marshall. M.Com.Sc.—W. D. Cousins.
Students. Full-time: total, 1112, including 48 graduates. Part-time,

326, including 41 graduates.

DEGREES. D.Lit., 1; M.D., 8; D.Sc., 5; M.A., 7; M.Sc., 10; M.Agr., 2; B.A., 108; B.Sc., 56; LL.B., 8; M.B., 50; B.Com.Sc., 18; B.Agr., 9; B.D.S. 1; D.P.H., 16; L.D.S., 16; H.Dip. in Ed., 13; Dip. in Ed., 22.

# UNIVERSITY OF DUBLIN, TRINITY COLLEGE

CHANCELLOR—The Rt. Hon. THE EARL OF IVEAGH, C.B., C.M.G., LL.D.

VICE-CHANCELLOR—The Rt. Hon. Sir Thomas F. Molony, Bart.,
LL.D.

VISITORS OF TRINITY COLLEGE—THE CHANCELLOR (OF VICE-CHANCELLOR); The Hon. Mr. JUSTICE GERALD FITZGIBBON, LL.D.

PROVOST-E. J. GWYNN, Litt.D., D.Litt., LL.D.

LIBRARIAN-J. G. SMYLY, M.A., Litt.D.

REGISTRAR-W. A. GOLIGHER, M.A., Litt.D.

LADY REGISTRAR-CHRISTABEL F. GODFREY, M.A.

REPRESENTATIVES IN PARLIAMENT OF IRISH FREE STATE—E. H. ALTON, LITT.D.; SIT JAMES CRAIG, M.D.; W. E. THRIFT, M.A.

#### SENIOR FELLOWS OF THE COLLEGE-

Roberts, Rev. W. R. W., D.D., Vice-Provost.

Russell, R., M.A. Bursar.

Fry, M. W. J., M.A., Sr. Lectr. and Catechist.

#### JUNIOR FELLOWS OF THE COLLEGE-

Kennedy, W., M.A., Sr. Proctor and Sr. Tutor.

†Goligher, W. A., M.A., Litt.D., Registrar and Sr. Tutor.

\*Fraser, J., M.A.

Alton, E. H., M.A., Litt.D.

\*Gwynn, Rev. R. M., M.A., B.D. \*†Tate, Sir Robert W., K.B.E.,

†Tate, Sir Robert W., K.B.E. M.A., Public Orator.

\*Thrift, H., M.A.

\*†Luce, Rev. A. A., M.A., D.D.

\*Johnston, J., M.A.

\*†Henry, J. M., M.A.

\*†Godfrey, F. La T., M.A. Joly, John, Sc.D., D.Sc., LL.D., F.R.S.

\* Tutor Fellows.

†Macran, H. S., M.A., Sr. Dean.

Thrift, W. E., M.A. Auditor.

Smyly, J. G., M.A., Litt.D. Librarian.

Mooney, G. W., M.A., Litt.B.

Rowe, C. H., M.A., M.Sc.

Fearon, W. R., M.A., Sc.D., M.B., F.I.C.

Starkie, W. F., M.A., Litt.D. D.Lit.

Bailey, K. C., M.A., Sc.D. Litt.D., D. de l'U. Toulouse, Jr. Dean.

Ditchburn, R. W., M.A., B.Sc., Ph.D., Jr. Proctor.

\*†Parke, H. W., M.A.

M'Connell, A. J., M.A., M.Sc., D. d'U. Rome, Sc.D.

Duncan, G. A., M.A., LL.B.

†Broderick, T. S., M.A.

† Honor Lecturers for 1931-32.

PROFESSORS, LECTURERS, ETC.

TROTEGOORG, DECT ORERO,	LIC.
Anatomy, Human, and Embryol.,	Lectrs.:
v. also Zool. Dixon, A. F., M.B., Sc.D. Prof. Martin, C. P., M.B., M.Sc.	Maxwell, Constantia E., M.A. (Econ. Hist.). Cooke, J., M.A. (Comm. Geog.).
Chief Demr.	Butler, W. B. (Accounting).
Henry, R. F. J., M.B. (Applied Anat.) Lectr.	Broderick, T. S., M.A. (Statist. Method).
Anglo-Saxon Waterhouse, Prof. G. Lectr.	Smyth, G. E., O.B.E., M.A. (Bus. Organ., Rys. and Transport). Moran, Frances E., LL.D. (Comm.
Art, History of Bodkin, T., D.Litt. N.U.I. Hon. Prof.	Law). Howell, C. E., M.A., LL.D. (In-
Astronomy Royal Astronomer of Ireland (suspended) Prof.	surance).  Magrath, C. R. R. (Banking and Foreign Trade).
Martin, C., M.A. Asst.	Dentistry, v. infra
Botany and Plant Biol. Dixon, H. H., Sc.D., F.R.S. Prof.	Divinity, v. Theol. infra
Wager, H. G., B.A. Camb., B.Sc.	Economics, v. Commerce
Lond. Asst.	Education
Celtic Languages, v. also Irish Knott, Eleanor Lectr.	Fynne, R. J., M.A. Dub. and Lond. Prof. Henry, J. M., M.A. Lectr.
Chemistry Werner, E. A., M.A., Sc.D., F.I.C.	• •
Prof. Ramsden, W. C., M.A. Sr. Asst.	Engineering, Civil Clark, D., M.A., B.Sc. Lond., M.I.C.E. Prof.
Bailey, K. C., M.A., Sc.D., Litt.D. Lectr.	Cotter, J. R., M.A. Lectr.
Classical Archæol., v. Hist., Anc.	Jackson, J. T., M.A. Asst. M'Cormick, F. R. A., A.R.C.S.I.
Classics	Asst.  Engineering. Electr.
Mooney, G. W., M.A., Litt.D. (Greek) Regius Prof.	Tatlow, W., M.A., B.A.I. (Practice
Alton, E. H., M.A., Litt.D. (Latin) Prof.	of E. Eng.) Lectr. Harriss, G. M., M.A. (Elect. Traction) Lectr.
Tate, Sir R. W., K.B.E., M.A. (Class Composition) Lectr.	Engineering, Harbour
The Tutorial Staff Lectrs.	Griffith, Sir J. P., M.A.I.
Commerce, v. also French, German, Spanish	Hon. Prof. Engineering, Sanitary, v. Public Health
Batable, Prof. C. F. (Econ.) Lectr.	English Literature
Johnton, J., M.A. (Econ.) Asst. Dunca, G.A., M.A., LL.B. (Econ.)	Trench, W. Fitz J., M.A. Camb. and T.C.D., Litt.D. Prof.
Asst.	French, R. B. D., B.A. Asst

· ·	
French Rudmose-Brown, T. B., M.A. Dub. and Aberd., D. de l'U. Grenoble Prof. Beckett, S. B., B.A. Lectr. Geography Smyth, L. B., M.A., Sc.D. Lectr. Geology and Mineralogy Joly, J., M.A., Sc.D., D.Sc., F.R.S. Prof. Poole, J. H. J., M.A., Sc.D. Research Asst. Smyth, L. B., M.A., Sc.D. Lectr. in Palæontol. and Asst. German Waterhouse, G., M.A. Camb., Litt.D. Prof. Hebrew, v. infra Orient. Langs.	Cotter, J. The Tutor Medicin Music Kitson, G. Mus.I Oratory Mod. Curtis, E., Oriental Philosof Macran, H Hartford, Moral The Tutor Physics M'Connell,
History, Ancient, and Classical Archæol. [Prof. Goligher, W. A., M.A., Litt.D. Johnston, J., M.A. Asst. History, Ecclesiastical, v. Theol.	Sc.D. Ditchburn Camb Camb Philos
infra  History, Indian  Hart, LtCol. E. G., M.A. Reader.	Braddick, Thrift, H.,
History, Modern, v. also Oratory and Hist. Curtis, Prof. E., M.A. Dub. and Ox. Prof. Phillips, W. A., M.A. Dub. and Ox. Lecky Prof. Maxwell, Constantia E., M.A. Lectr.	Poole, J. (Expe Physiolo, Pringle, F.R.C. Kin Sharpey-So
Irish O'Toole, E., M.A. N.U.I. Prof. Beaumont, J. N., M.A. Asst.	Sc.D., Jo Fearon, W
Italian [Lectr. Tate, Sir R. W., K.B.E., M.A. Starkie, W. F., Litt.D. (Ital. Lit.) Lectr.  Law, v. infra  Mathematics Rowe, C. H., M.A.  Erasmus Smith's Prof. Broderick, T. S., M.A.  Donegal Lectr.	Bell, J., M. Torrens, D. Political Bastable, ( Romance French Rudmose-I and Ab

R., M.A. Honor Lectr. rial Staff Lectrs. ne and Surgery, v. infra C. H., M.A. Camb., D. Ox., F.R.C.O. Prof. and Hist., v. also Hist., . M.A. Dub. and Ox. Erasmus Smith's Prof. l Langs., v. infra bhν Prof. I. S., M.A. (Moral P.) R. R., B.A. (Ment. and l Sci.) Hon. Lectr. rial Staff Lectrs. , A. J., M.A., M.Sc., (Nat. Philos.) Prof. ı, R. W., M.A. Dub. and o., B.Sc. Liv., Ph.D. (Nat. and Exper. s.) Erasmus Smith's Prof. H. J. J., B.A. Camb. Research Asst. , M.A. (Exper. Phys.) Lectr. H. J., M.A., D.Sc. er. Phys.) Lectr. ogy H., M.D., F.R.C.P.I., S.S.I. ng's Prof. Insts. of Med. chafer, Sir E., LL.D., F.R.S. hn Mallet Purser Lectr. r. R., M.A., M.B., Sc.D. Sr. Asst. .A., Sc.D. Tr. Asst. ). S., B.A. Jr. Asst. Economy, v. also Comm. C. F., LL.D. Prof. e Languages, v. also h, Italian, Spanish Brown, T. B., M.A. Dub. berd., D. de l'U. Grenoble Prof.

Bacteriology and Preventive Med.

Spanish

Bigger, J. W., M.D., Sc.D., D.P.H., Starkie, W. F., M.A., Litt.D. Prof. F.R.C.P.I. Theology, v. infra Dockeray, G. C., M.B. Asst. Thompson, A. H., M.B. Asst. Zoology and Compar. Anat. Gatenby, J. B., B.Sc., D.Phil. Ox., Biochemistry D.Sc. Lond., M.A., Ph.D. Fearon, W. R., M.A., M.B., Sc.D. Prof. Patten, Ruth E. P., B.A., M.Sc. Thompson, A. G., M.B., M.Sc. Asst. Rockefeller Foundn. Fellow. Law Biophysics | Bastable, C. F., LL.D., F.B.A. Bell, J., M.A., Sc.D. Lectr. Reg. Prof. of Laws. History of Med. Moran, Frances E., M.A., LL.D. Kirkpatrick, T. P. C., M.D., Hon. Lectr. in Law. Litt.D., F.R.C.P.I. Hon. Lectr. Civil Law and Genl. Jurispr. Laryngology and Otology Baxter, Prof. J. S. Lectr. Woods, Sir Robert H., M.B., Feudal and English Law M.Ch. Hon. Prof. Baxter, J. S., LL.B. Lond., M.A., Materia Medica and Pharmacy LL.D. Reg. Prof. Rowlette, R. J., M.D., F.R.C.P.I. Indian Law King's Prof. Duncan, G. A., M.A., LL.B. Medical Jurisprudence Lectr. Bewley, H. T., M.D., F.R.C.P.I., Penal Legislation, Const. and F.R.C.S. Eng. Lectr. Crim. L., and L. of Evid. MidwiferyPowell, A., M.A. Reid Prof. Wilson, T. H., M.A., F.R.C.P.I., L.R.C.S.I. King's Prof. Medicine (Physic) Neurology Purser, F. C., M.D. Hon. Prof. (for subjects of the first 2 yrs.— Anat., etc., v. supra) Pathology Wigham, J. T., M.D., D.P.H., Moorhead, T. G., M.D., D.P.H., F.R.C.P.I. Prof. L.M., F.R.C.P.I. Lait, J., M.B. Asst. Reg. Prof. of Physic. Pringle, S., M.B., F.R.C.S.I. (Path. Craig, Sir Jas., M.D. (Practice of of Bone) Hon. Lectr. Med.) King's Prof. Public Health Anatomy and Chirurgery Lecturers: Dixon, A. F., M.B., Sc.D. Prof. Delap, A. D., M.A., B.A.I., Martin, C. P., M.B., M.Sc. M.I.C.E. (San. Constrn. and Chief Demr. and Univ. Anatomist. Planning). Bigger, Sir E. C., M.D., M.S., D.S.M., R.C.P.S.I. (San. Law Anatomy, Applied Henry, R. F. J., M.B. Lectr. and P.H. Administrn.). Anæsthetics Bigger, J. W., M.D., Sc.D., D.P.H., Kirkpatrick, T. P. C., M.D., F.R.C.P.I. (Vital Stat.). Litt.D., F.R.C.P.I. Ramsden, W. C., M.A. (Chem.). Lectr.

Rockefeller Foundn. Fellows: O'Meara, R. A. Q., M.B., M.Sc. Dockeray, G. C., M.B., M.Sc.

Radiology

Hardman, T. G., M.D. Lectr. Surgery

Taylor, Sir Wm., K.B.E., C.B., M.A., M.Ch., M.D., F.R.C.S.I. Regius Prof.

Pearson, W., M.D. Prof. Gill, F., M.D. Asst.

Surgery, Orthopædic Haughton, W. S., M.D.

Hon. Prof.

#### Oriental Languages

Arabic, Persian, and Hindustani Hart, Lt.-Col. E. G., M.A. Prof. Hebrew

Gwynn, R. M., M.A., B.D.

Erasmus Smith's Prof. Luce, A. A., M.A., D.D. Weingreen, J., B.A., Ph.D.

Sanskrit and Compar. Philol. Lectr. . . . . . .

#### Theology

v. also Orient. Langs.

Biblical Greek

Gwynn, R. M., M.A., B.D. Prof. [Regius Prof. Divinity White, Rev. N. J. D., D.D.

Oulton, J. E. L., M.A., B.D. Abp. King's Prof.

Dungan, W. W., M.A.

Wallace Lectr. Bell, W., B.A. Belf., B.D. Lond.

(Bible) Lectr. Glover, T. R., D.D., LL.D.

(1932) Donnellan Lectr.

Assts.:

Luce, A. A., M.A., D.D. Green, D. C., M.A., B.D.

Proctor, W. C. G., B.D.

Young, E. J., B.D.

Ecclesiastical Hist.

Lawlor, H. J., D.D., Litt.D. Prof.

Pastoral Theology

Harvey, Rev. T. A., M.A., B.D. Prof.

#### Dentistry

Hogan, J. E., M.A., L.D.S. (Dental Surg. and Pathol.) Lectr.

Friel. E. S., M.Dent.Sc., Sc.D.

(Orthodontics) Lectr. Cockburn, J., M.A., L.D.S. Eng., L.R.C.P. and S.I., D.P.H., F.R.C.P.I.

(Dental Mechanics) Lectr.

Micks, R. H., M.A., M.D. (Med. for Dental Students)

Lectr.

#### ASSOCIATED COLLEGES

MAGEE COLLEGE, LONDONDERRY, for first three years of B.A. course. Church of Ireland Training College, Kildare Place, Dublin. The two-years' course of training for teaching in elementary schools is conducted partly at Trinity College, Dublin, and counts towards the Dublin B.A. subject to the candidate qualifying in Latin and a modern foreign language before proceeding as "Sophister" (3rd year).

#### GENERAL INFORMATION

Trinity College was founded and incorporated by Royal Charter in 1592 as "Mater Universitatis," but no other College has been founded, so that "Dublin Univ." and "Trinity College" are practically interchangeable terms Corporation of the College was put on its present basis by Letters Patent of 1637. Letters Patent of 1911 transferred the powers of making statutes from the Crown to the Corporation, subject to the consent of a majority of the Fellows and the approval of the Visitors. The general government of the Univ. is in the hands of the Board of Trinity College, which consists of the Provost, Senior Fellows, 2 representatives of Junior Fellows, and 2 representatives of the non-Fellow Profs. The Univ. Council, formed by representatives from the various Faculties and Schools, has the right of appointment to most Professorships, and in conjunction with the Board can make changes in the curriculum, but otherwise has only advisory functions.

The College occupies a large site in the middle of the city, with ample grounds for the athletic clubs.

THE LIBRARY of Trinity College has enjoyed since 1801 the privilege of receiving a copy of every book published in the United Kingdom. It contains over 390,000 printed books, amongst which there is in the Fagel Library a group of early pamphlets relating to the Dutch and English East and West India Companies. The MSS. are over 2000 in number, and include an important collection in Irish. A General Catalogue of the MSS. was published in 1900, and a Revised Catalogue of the Irish MSS. in 1921. A Catalogue of Printed Books in the library in 1872 was published in 1887 and distributed to the world. There is a Lending Library, which includes 6000 vols. bequeathed by the late W. E. H. Lecky; and smaller libraries in the Schools of Mod. Langs., Med., Maths., and Nat. Scs.

Museums. The scientific museums include Zool. and Comp. Anat., Geol. and Mineral., Surg. and Med., Path., Mat. Med., Anthropom., Engin. Models, Nat. Philos. The Zoological are among the best collections in the country. The series of vertebrate osteology is extensive. Attached Laboratories offer all facilities for research work. The collection of Geological and Mineralogical specimens is also extensive.

LABORATORIES. Anat., Anthrop., Bio-Chem., Bot., Chem., Geol., Histology, Mat. Med., Mech. Engin., Pathology, Physical (Iveagh), Physiol., Zool.

HERBARIUM (rich in plants of N. America, India, S. Africa, and Australia). BOTANIC GARDENS, 8 acres.

The Astronomical Observatory of Trinity College is at Dunsink, 5 miles from the College. It is the official residence of the Royal Astronomer of Ireland.

Ample facilities for clinical studies and many appointments for graduates are available in numerous Hospitals, including the well-known Rotunda. The Irish High Court is situated within a short distance of the College.

Professional Schools. Divinity, Law, Physic, Engin., Indian and Home Civil Service, Agric., Forestry, Music, Edn., Comm. Registrars: Law—W. A. Goligher, Litt. D.; Physic—G. L. Allen, M.A.; Engin.—H. Thrift, M.A.; Music—W. F. Starkie, Litt.D.; Civil Service—E. H. Alton, Litt.D.; Edn.—R. J. Fynne, M.A.; Agric.—J. Joly, Sc.D.; Comm.—H. W. Parke, M.A.

MATRICULATION. See Appendices XX. and XXI.

Degrees. Every student must take the B.A. before proceeding to any other degree, except those in music and B.Sc., M.Sc., Ph.D. The course lasts 4 yrs., but it is only necessary to keep 2 out of the 3 terms in each, or 8 in all. It is also possible to complete the course within 3 yrs. from entrance by taking the final examn. of the 1st yr. at the time of entering and keeping all 3 terms of the 2nd yr. However, all students not in a professional school or taking the B.Sc. course are required to attend Arts lectures in every term, unless specially exempted (e.g. those earning their living by teaching). If exempted they are permitted to keep all of their 8 terms by examn. instead of by attendance.

For the first 2 yrs. (Junr. and Senr. Freshman) all subjects are compulsory: Algebra, Geom., Trig., Mech., Logic, Engl. Essay, Latin, Greek or French or Italian or Spanish or Irish or German. After the examn. ("Little-Go") at the end of the 2nd yr. wide freedom of choice is allowed of subjects for the remaining (Junior and Senr. Sophister) yrs., and exemption from one subject is granted to Law, Engin., Comm., and Div. students. For Med. students there is a specially reduced Arts course throughout.

Pass Arts teaching, mainly given by the Tutor Fellows, is partly of a catechetical nature. Every student must choose one of the Tutor Fellows (see list above) as his Tutor and should apply to him for all information before and after entrance.

The Honour B.A.—known as a Moderatorship—can be taken in 11 different groups (viz. 1 Math., 2 Class., 3 Ment. and Mor. Sc., 4 Exp. Sc., 5 Nat. Sc., 6 Hist. and Pol. Sc., 7 Mod. Lit., 8 Leg. and Pol. Sc., 9 Eng. Sc., 10 Celtic, 11 Oriental Lang.), and undergraduate honours in the same subjects (except Nos. 9 and 11) can be obtained in each academic year and in most subjects in each term. The course lasts four years in the case of Nos. 1, 2, 3, 4, 5, 6, 7, 10, three years in No. 9, and two years in No. 8. Instruction in these Honour courses is given partly by the Profs. and partly by the Tutorial staff.

A B.A. of three years' standing may be admitted M.A. There is no examn.

for this, nor is a thesis required.

The B.Sc. is obtained by a 4-year course consisting of 12 terms of lectures and 4 examns. In the first two years English, French, German, Mathematics, Physics, and Chemistry are compulsory. In the last two years the student studies 3 subjects chosen from Physics, Chem., Bot., Zool., Physiology, Anat.

A B.Sc. with hons, is obtained by passing an examn, identical with Modera-

torships (see above) in Experimental or Nat. Science.

The B.D. is obtained by an examn. open to all grads. in Arts, and the D.D. is open to any B.D., eight years after taking B.A., and is awarded on a thesis or published Theol. work.

The LL.B. course covers 2 yrs.; the M.B., B.Ch., and B.A.O., 5 yrs.; B.Dent.Sc., 4yrs.; B.A.I., 3 yrs. (optional 4th yr. in Elec. and Mech. Engin.); Agr.B. or Agr. (Forest) B., 4 yrs., of which 3rd and 4th are taken in Univ. Coll. (N.U.I.); B.Comm., 3 yrs. The M.Sc. and Ph.D. (v. p. 18) involve post-

graduate study and research for 1 yr. and 2 yrs. respectively.

A candidate for the Sc.D. or Litt.D. must have at least 3 yrs.' standing as B.A., and submit important original work; for LL.D. must be of M.A. standing—a thesis or a published work is required; for M.D. must have taken the M.B. degree and be of M.A. standing; for M.Ch. must be a B.Ch. of 3 yrs.' standing; for M.A.O., a B.A.O. of 2 yrs.' standing; a thesis or examn. is required for M.D., an examn. for the M.Ch. or M.A.O. A candidate for M.Dent.Sc. must be a B.Dent.Sc. of 1 yr.'s standing, and pass an examn.; for M.A.I. must have practised his profession for 3 yrs. after graduating as B.A.I. The Mus. D. is granted after an exercise or practical test.

DIPLOMAS in Agric., Educn. (Primary and Higher), Econ. and Comml. Knowledge, Elec. Engin., Gynæc. and Obst. (1 yr.'s course), D.P.H., Religious Knowledge (women).

License in Engineering (first two years of Arts course and complete course in Engineering). License in Med., Surg., and Obst. Science.

Certificate in Engineering (complete course in Engineering, but without Arts course).

Testimonium in Divinity (2 yrs.' course).

RECOGNITION OF OTHER UNIVS., ETC. Credit is allowed for terms kept at

Oxford or Cambridge, but no student or graduate of any other Univ. can take the B.A. unless he has kept at least 2 yrs. at Trin. Coll. No student can take any medical degree unless he has attended at least 3 yrs. in Trin. Coll.

A B.A., B.Sc., or M.A. of any of the undermentioned Univs. may be allowed credit *pro lanto* for the first 2 yrs. and the examn. held at their expiration: Aberd., Belf., Birm., Brist., Edin., Glas., Leeds, Liver., Lond., Manch., St. And., Sheff., Wales, and Nat. Univ. of Ireland.

A student who has passed two years in Arts studies at any of the undermentioned Univs. and passed the examns. belonging to that period is given credit *pro tanto* for the first academic year: Adel., All., Bom., Cal., Dacca, Dalh., McGill, Madr., Mel., N. Brun., N. Zea., Panj., Patna, Syd., Tas., Tor., King's Coll. (Windsor, N.S.).

A student who has passed the Matricn. examn. of any Univ. in S. Africa, including Latin, Maths., and either French, German, Dutch, or Greek, is admitted without further examn., and, if a Med. student, is excused the Prelim. Med. examn. Medical students are given credit for lectures and examns. in Zool., Bot., Chem., and Physics of any S. African Univ., and also for lectures and practical work in Anat. and Physiol., but not for the examns. in these last two subjects. Courses in Path. and Bact. at Cape Town and Witwatersrand are also recognized.

A student who has passed the Interm. examn. of any Univ. in S. Africa is permitted to present himself at the Final Freshman examn., with exemption from those subjects in which he has already passed at the Interm. examn.

A student who has passed the B.A. examn. of any Univ. in S. Africa is allowed credit for the 1st two collegiate yrs. and for the Final Freshman examn. To students admitted to advanced standing the entrance fee is remitted

and in most cases some of the half-yearly Arts fees.

In keeping terms students from S. Africa are allowed to substitute Dutch for French or German, when 2 languages are required. They should write to the Senior Lecturer for fuller information.

Students in Medicine at any "Grade A" Univ., U.S.A., or at any Dominion or Colonial Univ., may make application to the Dean of the School of Physic for recognition of work done by them. They will be treated according to the general lines adopted in the case of S. African students. No recognition granted under this scheme will exempt a student wishing to take the Dublin degree from spending at least three full years of Med. study in Trin. Coll.

FEES. Entrance, £15; Composition for all Arts and Science Lectures, 20 gs. p.a.; Med. course total (including Hospitals and Degree fees), about £150; Dental Sci. total, about £200; Engin., (3 yrs.) £50 (minimum), in addition to Arts Tuition fees; Divinity free for students in Arts, 20 gs. p.a. for others; Commerce, £47 (if Arts Course is taken), £80 (for extern. students).

Among Scholarships, Prizes, etc., open to Graduates are: Two studentships of £100 offered at the B.A. degree examn.; prizes from £50 upwards to selected honour graduates with conditions of study and research attached. Madden Prize Fund £424 p.a. awarded to unsuccessful candidates at Fellowships examn. or for research work or as a Travelling Scholarship. Travelling Prize, £100 in Medicine or Surgery (3 mos. to be spent in Berlin, Paris, or Vienna). A number of other prizes, etc. (including the National Hist., nearly £400), are open to graduates under M.A. standing.

RESIDENCE. The College has accommodation for 320 students. Rent £9 to £20 p.a. for single sets, £14 to £32 for double sets of rooms; dinner in Hall, 14s. a week. Trinity Hall (Warden, Eliz. M. Cunningham, M.A.) accommodates 40 women; board and residence, £23:10s. to £28:10s. per term of 10 weeks. There is also a hostel for Divinity students of the Church of Ireland.

An Appointments Board was established in 1906.

Publications. Calendar (Oct.), 4s., includes information as to courses, results of examns., degrees conferred, etc.; special Suppt. (occasional), lists of past honours, benefactors, etc. Examn. Papers of the several Honour schools; of the several Professional schools; of Entrance examns. and prizes; and of Pass Arts, are published in pamphlet form at is. per set. The final War List has been published, price 2s. 6d. Book of T.C.D., 1591-1891, 21s. (Hodges, Figgis & Co., Dublin). Hermathena (annual), original papers in Arts subjects. T.C.D. (Students'), 3d. weekly.

#### THE YEAR 1930-31

BENEFACTIONS. £600 under the will of the late Edward John French, M.A., to found two exhibitions tenable by pupils of Shrewsbury School and Howell's School, Denbigh, respectively.

DONNELLAN LECTURER. T. R. Glover, D.D., LL.D.

Honorary Degrees. *LL.D.*—Edward Bohane, Sir Josiah Charles Stamp. *M.D.*—Sir John Rose Bradford, Sir Foster Reuss Newland. *Litt.D.*—Osborn Joseph Bergin, Max Förster. *Sc.D.*—C. Ubbo Arièns Kappers.

Total number of Students on the College Books under the Degree of M.A., June, 1931: In Arts:—1240. In addition, 104 Med. Students and 26 Law Students not in Faculty of Arts, also 85 Primary Teachers in Training. Total, 1455. Medicine, total, 408; Eng., 60; Divinity, 58; Commerce, 30; Law, 90; Sec. Edn. Dipl. Students, 18.

OTHER DEGREES. D.D., I; LL.D., 5; M.D., 13; Ph.D., 6; M.A., 62; M.Ch., 2; M.A.O., 2; M.Sc., 3; LL.B., 22; M.B., 35; B.A.I., 8; B.A.I. (Elec. et Mech.), I; Agr.B., I; B.Comm., 3; B.A., 214; B.Sc., 8.

# THE NATIONAL UNIVERSITY OF IRELAND

VISITOR-H.M. THE KING.

Chancellor—Eamon de Valera, B.A., B.Sc., LL.D., Ph.D., T.D.

VICE-CHANCELLOR—DENIS J. COFFEY, M.A., M.B., B.Ch., B.A.O., LL.D., President University College, Dublin, until Dec. 31, 1932.

Pro-Vice-Chancellors—The Presidents, Univ. Colls., Cork and Galway, and St. Patrick's Coll., Maynooth.

REPRESENTATIVES IN THE DAIL—M. HAYES, M.A., T.D.; P. M'GILLI-GAN, M.A., T.D.; M. TIERNEY, M.A., T.D.

REGISTRAR—FREDERICK H. WIBER, LL.D., 49 Merrion Square, Dublin. Constituent Colleges. University Colleges, Dublin, Cork, and Galway.

RECOGNIZED COLLEGE. St. Patrick's College, Maynooth.

# PROFESSORS AND LECTURERS

Prof. of Catholic Theology—Rev. J. J. Hannon, S.J. Staffs of the Univ. Colleges, v. infra.

Recognized Teachers in approved degree courses in St. Patrick's College, Maynooth (President—Rt. Rev. Monsignor MacCaffrey, LL.D.). Classics—Rev. J. F. D'Alton, M.A., D.D., D.Litt.; Rev. J. G. O'Neill, M.A.; Rev. J. Duff, M.A. Eastern Langs.—Very Rev. P. Canon Boylan, M.A., D.Litt. Education—Rev. M. A. Brenan, M.A., H. Dip. in Ed. English—Rev. C. Mulcahy; Rev. P. MacSweeney, M.A. French and German—Rev. J. L. Rigal, M.A. Irish—Rev. G. O'Nolan, M.A., D.Litt. Italian—Rev. J. F. D'Alton, M.A., D.Litt., D.D. Maths. and Math. Physics—Rev. P. J. Browne, M.A., D.Sc. Music—Rev. M. Tracy, B.A., L.Mus. Rome. Philos., Mental and Moral—Rev. M. Forker, D.Ph., D.D.; Rev. P. Coffey, D.Ph.; Rev. J. O'Neill, D.Ph. Physics, Expl.—Rev. P. J. J. McLaughlin, M.Sc. Welsh—.....

# GENERAL INFORMATION

The National University of Ireland, with its Constituent Colls., Univ. Coll., Dublin, Univ. Coll., Cork, and Univ. Coll., Galway, was founded 1909. For early history, see Year Book, 1929.

FACULTIES. (1) Arts, (2) Philosophy and Sociology, (3) Celtic Studies, (4). Science, (5) Law, (6) Medicine, (7) Engineering and Architecture, (8) Commerce, (9) General Agriculture (Univ. Coll., Dublin, only), (10) Dairy Science (Univ. Coll., Cork, only). Music is included in Arts and Celtic Studies. Classes are held in all Faculties, except (9) and (10), at each of the constituent Colleges, and in 1, 2, 3, and 4 at Maynooth.

Degrees: B.A., M.A., D.Litt., B.Mus., D.Mus., D.Litt.Celt.; B.Sc., B.Agr.Sc., M.Sc., M.Agr.Sc., D.Sc.; LL.B., LL.D.; M.B., B.Ch., B.A.O., M.Ch., M.A.O., M.D., B.Sc. and D.Sc. in Pub. Health; M.Econ.Sc.; D.Econ. Sc.; B.Sc. (Dairying); D.Sc. (Dairying); B.D.S., M.D.S.; B.E., B.Arch., M.E., M.Arch.; B.Comm., M.Comm.; Ph.D.

Course for a First degree in any faculty—9 terms in one of the Constituent Colls. or St. Patrick's Coll., Maynooth,

The M.A., M.Sc., M.Agr.Sc., D.Sc., B.Sc., Pub. Health, M.E., M.Arch., M.Comm., Ph.D., D.Litt. may be conferred on graduates or other students for research under prescribed conditions in the Univ. or in a Constituent Coll. during at least 3 terms for a Master's degree or 6 terms for the Doctorate. The duration prescribed for the course of study and research for the Ph.D. is 9 terms (reducible to 6). See p. 18.

Diplomas are offered in the subjects of Faculties 1, 3, 8, and in several others; certificates in Commercial subjects. A Higher Diploma in Educn. may be obtained by a graduate of any Univ. of the U.K. or other approved Univ. after a course in one of the Constituent or Recognized Colls. A Diploma in Library Training is available in Univ. Colls., Dublin and Galway.

FEES: Matricn., £3. Combined examn. and degree, £9 to £21. Diplomas £2 to £5.

STUDENTSHIPS, ETC., FOR GRADUATES. Five of £200 each, tenable for 2 yrs. outside Ireland (to which a prize for a further year of Irish Historical Research may be added), open to graduates of the Univ. of not more than 4 yrs.' (one in Medicine, 2 yrs.', one in Philosophy, 5 yrs.') standing; a scholarship of £150 in Mental and Nervous Diseases; bursary in Commerce and bursary in Engineering, £150, each tenable for 1 yr.; prize of £100 for Irish Historical Research.

Publication. Calendar (December), 2s.

# THE YEAR 1930-31

HONORARY DEGREES. D.Litt.—Eleanor H. Hull. D.Sc.—John Joly. M.Arch.—Rudolph M. Butler, Sir Banister F. Fletcher.

Travelling Studentships. Six in the year 1930-31.

Degrees, 1930-31. B.A., 394; M.A., 21; LL.B., 7; B.Sc., 52; M.Sc., 15; D.Sc., 2; M.B., B.Ch., B.A.O., 49; D.P.H., 22; M.D., 15; M.Ch., 4; M.A.O., 1; B.D.S., 2; Ph.D., 3; B.Agr.Sc., 3; B.Comm., 47; M.Econ.Sc., 1; B.E., 18; B.Arch., 2; H.Dip. in Ed., 121; Dip. in Ed., 55; Dip in Libr. Training, 5; Dip. in Irish Studies, 5; Cert. in Comm., 1; B.Sc. (Dairying), 3; M.E., 1; M.Comm., 2; Dip. in Psychological Med., 1; B.Sc. Public Health, 2; D.Litt., 1.

# UNIVERSITY COLLEGE, DUBLIN

VISITOR-H.M. THE KING IN COUNCIL.

PRESIDENT-D. J. COFFEY, M.A., M.B., B.Ch., B.A.O., LL.D.

REGISTRAR-Prof. A. W. CONWAY, M.A., D.Sc., F.R.S.

SECRETARY AND BURSAR-J. W. BACON, M.A.

LIBRARIAN-J. J. O'NEILL.

# PROFESSORS, LECTURERS, ETC.

Accountancy Lectr. Chemistry, Phys. & Metallurgical O'Connor, D., B.Comm., F.C.A. \*Leonard, A. G. G., B.Sc., Ph.D., F.R.C.S.I. Lectr. Agriculture, v. infra Classics Anatomy Tierney, M., M.A. (Greek) Prof. McLoughlin, E. P., B.A., M.B., Semple, P., M.A. (Latin) Prof. B.Ch., B.A.O. Prof. Gwynn, Rev. A., S.J., M.A., MacAuley, C. J., M.B., B.Ch., B.Litt. (Ancient History) B.A.O., F.R.C.S. Eng. Asst. Lectr. Keenan, E., M.D., B.Ch. Asst. Farrell, E., B.A. Asst. Amorosg, E., M.B., B.Ch. Asst. Commerce Archæology, Celtic [Prof. Shields, B. F., M.A. Prof. Macalister, R. A. S., M.A., D.Litt. Dentistry, v. infra Architecture Economics, v. Pol. Econ. Butler, R. М., F.R.I.B.A., F.R.I.A.I. Prof. Education Light, C., B.A. Lond., Prof. Α. Corcoran, Rev. T., D.Litt. A.R.I.B.A. Demr. Williams, W. J., M.A. Lectr. O'Kelly, Mary K., B.A. Asst. Banking and Finance 4 addnl. Assts. Shields, Prof. B. F. Actg. Lectr. Engineering, Civil Botany Purcell, P. F., M.A., M.A.I. Prof. Doyle, Joseph, B.A., D.Sc. Prof. Lewis, F. E., B.A., B.E. Asst. Demr. Engineering, Elect., v. Physics Chemistry Prof. Engineering, Mechanical Algar, J., B.A., D.Sc. Lectr. \*Taylor, J., M.A., A.R.C.S.I. Prof. Keane, J., M.Sc., Ph.D. Lectr. \*\*Warwick, F. W., B.A., B.E. Chemistry, Applied Organic Acting Lectr. \*O'Farrelly, A., M.A., F.I.C. Prof. \*\*Cormack, P., F.R.C.S.I. Demr.

<sup>\*</sup> Profs. and Lectrs. of the former Royal College of Science who have accepted equivalent offices in Univ. College, Dublin, and have been appointed Profs. and Lectrs. of the N.U.I. in this College.

<sup>\*\*</sup> Demonstrators similarly appointed.

English Lang. and Philology Prof. MacSweeney, J. J., M.A. Asst. English Literature Donovan, R., B.A., D.Litt. Prof. Hogan, J. J., M.A., B.Litt. Asst. McGrane, Eileen M. L., M.A. Asst. French and Romance Philol. Chauviré, R., D. ès L., D. Litt. Prof. O'Kelly, Mary K., B.A. Harnett, Ellen, M.A. Asst. Geology Seymour, H. J., B.A., B.Sc. Prof. Corballis, J., B.Sc., 'A.R.C.S.I. Asst. German Macken, Mary, M.A. Prof. Bowler, Margt., M.A. Asst. Hebrew and Aramaic Boylan, Rev. Canon P., M.A., D.Litt. Prof. History Gwynn, Rev. A., M.A., B.Litt. Actg. Prof. Webb, J. J., M.A., LL.D. (Munic. H.) Lectr. Donovan, P. F., M.A. Asst. History, Early, including Mediæval Irish MacNeill, J., B.A., D.Litt. Prof. History, Modern Irish Hayden, Mary T., M.A. Prof. Irish, Early and Mediæval Bergin, O., D.Litt. Wales, B.A., Ph.D. Prof. Irish Lang. and Lit., Modern Prof. O'Farrelly, Agnes, M.A. Lectr. \*\*O'Callaghan, P., A.R.C.S.I. Delargy, J. H., M.A. Asst. Dillon, M., M.A., Ph.D. Asst. Italian and Spanish Lang. and Lit.Degani, Maria A., Dipl. Univ. Padua Prof.

Law, Constitutional, etc. Ryan, M. J., M.A., B.Sc., LL.B., K.C. Prof. Law, Jurispr., and Internat. and Roman Binchy, D. A., M.A., Ph.D. Prof. (by substitute) Law of Property and of Contracts Clery, A. E., B.A., LL.D. Prof. Mathematics McWeeney, H. C., M.A. Prof. Egan, Rev. M. F., M.A. Lectr. Keating, G., M.Sc. Asst. Mathematics, Pure and Applied \*Orr, W. McF., M.A., D.Sc., F.R.S. Prof. Medicine and Surgery, v. infra MusicLarchet, J. F., Mus.D. Prof. Music, Irish O'Dwyer, R. Prof. Philology, Comp. and Sanskrit Dillon, M., M.A., Ph.D. Lectr. Philosophy Profs.: O'Keeffe, Rev. Canon D., M.A. (Ethics and Politics). Shine, Rev. J., M.A. (Logic and Psychol.). Magennis, W., M.A. (Metaphysics). Horgan, Rev. J., M.A. Physics and Electrical Engineering \*Hackett, F. E. W., M.A., M.Sc., \*Allen, R. G., B.Sc., A.R.C.S.I.

Physics, Experimental Nolan, J. J., M.A., D.Sc. Prof. Dowling, J. J., M.A., F.Inst.P. Nolan, P. J., D.Sc., Ph.D. Lectr.

(Electro-Technol.) Lectr.

Demr.

<sup>\*</sup> Profs. and Lectrs. of the former Royal College of Science who have accepted equivalent offices in Univ. College, Dublin, and have been appointed Profs. and Lectrs. of the N.U.I. in this College.

<sup>\*\*</sup> Demonstrators similarly appointed.

Physics, Mathematical	Medicine
Conway, A. W., M.A., D.Sc.,	Mat. Med. and Therap.
F.R.S. Prof.	Dillon, T. W. T., M.B., B.Ch.,
Keating, G., M.Sc. Asst.	B.A.O. Prof.
Physiology and Histology	Med. Jurispr.
O'Connor, J. M., B.A., M.D. Prof.	McGrath, J., M.Sc., M.B., B.Ch.,
Dillon, T. W. T., M.B., B.Ch. Asst.	B.A.O. Lectr.
Conway, E. J., D.Sc., M.B., B.Ch.	Medicine
Prof.	Moore, H. F., M.D., D.Sc. Prof.
Polit. Econ. and Nat. Econ.	Meenan, I. N., M.B., B.Ch.,
O'Brien, G., B.A., D.Litt., B.L.	Meenan, J. N., M.B., B.Ch., B.A.O., D.P.H. (Systematic
Prof.	Medicine) Prof.
Prendeville, P. L., B.A., B.Comm.	Midwifery and Gynæc.
Asst.	Farnan, R. P., M.B., B.Ch. Prof.
Welsh	O'Kelly, J. J., B.A., M.B., B.Ch.,
Jones, J. Ll., M.A., B.Litt. Prof.	M.A.O. (Obstetrics) Lectr.
Zoology	White, R., F.R.C.S.I. (Gynæc.).
Butler, J. B., M.A., M.B., B.Ch.,	Lectr.
B.A.O. Prof.	Ophthalmology
Humphries, Annie, M.Sc. Asst.	Werner, L., B.A., M.B., B.Ch.,
A * 1/	B.A.O., F.R.C.S.I. Prof.
Agriculture	Pathology and Bacteriology [Prof.
Drew, J. P., M.Sc., A.R.C.S.I.	O'Farrell, T. T., F.R.C.S.I., D.P.H.
Prof.	Crofton, W. M., B.A., M.D.
Agricultural Botany and Bac-	(Special P.) Lectr.
teriology	Pharmacol. and Bio-Chemistry .
*Gorman, M. J., A.R.C.S.I. Lectr.	Conway, E. J., D.Sc., M.B., B.Ch.
Agricultural Chemistry	Actg. Prof.
Lectr.	Public Health and Bacteriology
Animal Nutrition [Lectr.	O'Kelly, W. D., M.D., D.P.H.,
Sheehy, E. J., B.Sc., F.R.C.S.I.	D.Sc. (Pub. Health) Prof.
Forestry	O'Callaghan, W. P., M.B., B.Ch.,
····· Prof.	B.A.O. Asst.
Horticulture	Surgery [Prof.
Sherrard, G. O., A.R.C.S.I. Lectr.	Barniville, H. L., B.A., M.D., M.Ch.
Plant Breeding	Meade, H. S., F.R.C.S.I. (Sys-
Caffrey, M., A.R.C.S.I. Lectr.	tematic Surg.) Prof.
Plant Pathology	<b>T</b>
Murphy, P. A., B.A., D.Sc.,	Dentistry .
A.R.C.S.I. Prof.	Sheridan, E., M.D.S., F.R.C.S.I.
Soil Physics	(D. Surg.) Prof.
Gallagher, P. H., D.Sc.	Potter, J. I., L.D.S., M.D.S. (D.
Actg. Lectr.	Mech.) Prof.
7 Research Assts., 6 Assts.	Flanagan, L., B.D.S., M.B., B.Ch.,
and Demrs.	B.A.O. (Orthod.) Lectr.

<sup>\*</sup> Profs. and Lectrs. of the former Royal College of Science who have accepted equivalent offices in Univ. College, Dublin, and have been appointed Profs. and Lectrs. of the N.U.I. in this College.

#### GENERAL INFORMATION

The College was constituted by Royal Charter in 1909. The LIBRARY, 65,000 vols., includes the books of the late Catholic Univ. and R.U.I., the Palles Law Library (presented by Archbishop Walsh), the Stopford Green (History) Library and the Zimmer Celtic Library. Museums: Ancient History. Laboratories include those of the late R.U.I. and of the new buildings completed in 1919.

Under the University Education (Agriculture and Dairy Science) Act 1926 of the Irish Free State the functions of the Royal College of Science for Ireland have been transferred to Univ. Coll., Dublin. For the conditions of transfer,

see Yearbook, 1929.

The LABORATORIES are fitted throughout with all modern appliances. Facilities for technical research in all branches of Chemistry, e.g. extraction of metals, production of metallic alloys, glazes, enamel, glass, pigments, paints, coal-tar derivatives, peat products, synthetic drugs. Engineering Pattern Shop, Foundry, Smithy, Machine Shop; examples of types of engines aggregating 700 H.P. Hydraulics and Hydraulic Machinery Labs. Testing Machines recording up to 100 tons. Elec. Engin. Labs. with D.C. and A.C. machines. Extensive Physics, Agric., and Nat. Sc. equipment.

LIBRARY with 59,000 Scientific and Tech. books, 10,000 pamphlets, numerous maps, etc.

Courses are provided for the degrees of the N.U.I. in all Faculties.

FEES for tuition, annual, in degree courses: Arts or Comm.—£14:19s.; Science—£20 to £25; Engin.—£20 to £23; Law (in addition to Arts)—8 gs. Med. (including Coll. Hospl.), whole period—£165.

College Scholarships, post-graduate in Arts or Science: 5 of £60.

Residence. Hostels for men and for women. Students are subject to supervision by Deans of Residence.

Publication. Calendar, Nov., 5s.

# THE YEAR 1930-31

New Buildings. Anat. Dept. enlarged and newly equipped in the Earls-fort Terrace Buildings.

New Posts. Professorship of Bio-chem. and Pharmacol.; Lectureships in Anc. and Mod. Irish Hist., Econ. and Commerce, Irish Folklore.

VISITS FROM OTHER UNIVS. Prof. Moritz (Berlin), Prof. Focillon (Sorbonne).

RETIREMENT AND DEATH. Prof. Douglas Hyde (Mod. Irish Lang. and Lit.), retd.; Prof. Hugh Ryan (Chem.), died.

STUDENTS. Full-time: total, 1542; graduates, 191. Part-time: total, 142; certif. music, 25; Architecture, 77; Law, 57; Agric. (1 yr. course), 39; Library Dipl., 13 (7 included in graduates); occasional, 9.

Vacation Courses (Summer): post-grad. medical, 16; Library, 12; Music, 52.

DEGREES OBTAINED. B.A., 221; LL.B., 7; B.Sc., 34; B.Comm., 30; M.B., B.Ch., B.A.O., 26; B.D.S., 2; B.E., 11; B.Agr.Sc., 3; M.A., 12; M.Sc., 7; M.Comm., 2; M.D., 8; M.Ch., 3; Ph.D., 2; D.Sc., 1; Higher Dipl. Educ., 92; D.P.H., 16; B.Arch., 2; Libr. Dipl., 7.

# UNIVERSITY COLLEGE, CORK

VISITOR—H.M. THE KING IN COUNCIL.

PRESIDENT—P. J. MERRIMAN, M.A., LL.D.

REGISTRAR—A. O'RAHILLY, M.A., B.Sc., Ph.D.

SECRETARY AND BURSAR—J. DOWNEY, M.Comm.

LIBRARIAN (ACTING)—T. A. CONROY, M.A.

# PROFESSORS, LECTURERS, ETC.

Accounting and Business Administration

Magennis, A. J., M.Econ.Sc., F.S.A.A. Prof.

MacCarthy, C. P., M.Comm., F.S.A.A. Lectr.

I Demr.

Agriculture

Boyle, C., M.A. Wisc., B.Sc., Ph.D. Lond., D.I.C. Prof.

Anatomy

Fitzgerald, D. P., B.A., M.B., B.Ch., B.A.O. Prof. Henley, F. J., B.A., B.Sc., M.B. Asst.

Kiely, P., B.Sc., M.Ch., M.D., F.R.C.S.Eng. Asst.

Archæology [Prof. Power, Rev. P., D.Litt., M.R.I.A.

Architecture [Lectr. Hill, H. H., B.A. Liv., A.R.I.B.A.

Botany

Cummins, Maj. H. A., C.M.G., M.D., D.P.H., F.L.S. Prof. I Demr.

Chemistry

Reilly, J., M.A. Camb., D.Sc. Geneva and Dub., H.Dip.Ed., F.R.C.S.I., F.I.C., F.I.P. Taylor, John, D.Sc. Lectr. O'Cinnéide, R., M.Sc. (in Irish) Lectr.

Drumm, P. J., M.Sc., Ph.D. Asst. 1 Demr. (Chem., Applied)

Classics

Treston, H. J., M.A., D.Litt. Prof. Porter, W. H., M.A. Dub. Lectr.

Dairy Science

Grimes, M., B.Sc. Tor., M.Sc., Ph.D. Iowa Lectr. (D. Bact.). Lyons, J., A.R.C.S.I., N.D.A., N.D.D. Lectr. (D. Tech.). McGrath, F. A., B.E.

Lectr. (D. Eng.). Pyne, G. T., B.Sc. Lond., M.Sc., Ph.D., F.I.C.

Lectr. (D. Chem.). Murphy, M., M.A., B.Comm.

Lectr. (D. Accountancy and Econ.).

3 Demrs.

Dentistry, v. infra

Economics and Commerce [Prof. Busteed, J., M.Comm., F.S.S. Larkin, Rev. W. P., M.A., Ph.D. Lond. Asst.

Educatron

O'Sullivan, Eliz. M., M.A. Prof. Conlon, J., M.A., H.Dip.Ed. (in Irish) Lectr. McSweeney, E. P., M.A. (Hist. of Ed.) Lectr.

Prof.

Engineering, Civil Walsh, H. N., M.E., D.I.C. Prof. Coffey, Patrick, M.E. Lectr.  Engineering, Municipal Farrington, S. W., B.A., B.E. Lectr.  English Corkery, D., M.A. Prof. French Le Berre, Anne Asste. Gaelic Languages O'Rahilly, T. F., M.A., D.Litt. Research Prof. Geology and Geography Swain, I., B.A., A.R.C.S.I. Prof. Leahy, D. J., M.A. (Geog. in Irish) German	Philosophy Fitzgibbon, Rev. T. E., B.A., Ph.D. Louvain Prof. Callaghan, Rev. John, M.A. Asst. Physics Prof. Belas, P. E., B.A., M.Sc., A.R.C.S.I. (Experimental P.) Lectr. I Demr. Physiology Barry, D. T., M.D., D.Sc., D.P.H., F.R.C.S. Prof. I Demr. Romance Languages, v. also French Ryan, Mary, M.A. Prof. Spanish Cooke, W. C., M.A. Lectr.
Boyle, Mrs. Mary, M.A. Prof.  History Hogan, J., B.A. Prof. Leahy, D. J., M.A. (in Irish) Lectr.	Zoology Renouf, Louis P. W., B.A. Camb., Dip. Agric. Camb. Prof. 1 Demr.
Henley, Pauline, M.A. Asst.  Irish Lang. and Lit. O'Donoghue, T., D.Litt. Prof. O'Donoghue, E., M.A. (Mod. Irish) Lectr. O'Cadhlaigh, C., M.A. Lectr.  Irish Music [Lectr. Patterson, Annie, B.A., Mus.Doc. Law Daly, G. J., B.L. Prof. (C. Law, Real Prop. and Eq.). Murphy, C. K., M.A., LL.B., H.Dip.Ed. (Jur., R. Law and Pers. Prop.). Prof. Mathematics	Medicine  (for subjects of first 2 yrs.—Anat., etc., v. supra)  Hygiene and Public Health  Saunders, J. C., M.B., B.Ch., B.A.O., D.P.H. Prof (and Tuberculosis) Lectr.  Materia Med.  Donovan, T., M.A., M.B. Lectr.  Medical Jurisprudence  O'Donovan, J. M., M.Sc., M.D., M.R.C.P.I. Lectr.  Medicine  O'Sullivan, P. T., M.D., B.Ch.,
Conran, M. J., M.A., D.Sc. Prof. McCarthy, M. D., B.A. (in Irish) Lectr. Mathematical Physics [Prof. O'Rahilly, A., M.A., B.Sc., Ph.D. Medicine and Surgery, v. infra Music	B.A.O., M.R.C.P. Prof.  Mental Diseases Lectr.  Obstetrics and Gynæcology Kearney, J. J., M.D., D.P.H., F.R.C.S.Ed. Prof.  Ophth. and Otology O'Hea-Cussen, V., M.B., B.Ch.,

Pathology Moore, A. E., M.B., B.Ch., B.A.O. Prof. Cross, Mary, M.B., B.Ch., B.A.O. (Clin. Path.) Asst.

Therapeutics Cantillon, E. V., M.B., B.Ch., B.A.O. Lectr.

Surgery Dundon, J., M.B., B.Ch., B.A.O., F.R.C.S., F.R.C.S.I.

Hackett, J. R., M.B., L.D.S. Lectr. (D. Surg.). Sheedy, G., L.D.S., R.C.S.I. Lectr. (D. Mech.).

Dentistry

Pearson, C. B., M.D., M.Ch.. B.A.O. Asst.

## GENERAL INFORMATION

Queen's College, Cork, founded in 1845, became a constituent College of the N.U.I. in 1908.

LIBRARY: 100,000 vols., including the d'Arbois de Jubainville collection of Celtic works, the Sharman Crawford Library, the Wilson Historical Library, the Sexton Anglo-Indian Library. Museums: Archæol., Ethnol., Geol., Mineral., Nat. Hist., Med.

LABORATORIES. Agr., Biol., Chem., Engin. (Testing, 200,000-lb. machine, and Hydraulics), Geol., Physics, Medical School. BOTANICAL GARDENS. OBSERVATORY with 8" equatorial and II" photo. telescopes, seismograph. and 4" siderostat.

Complete Courses provided for all degrees and diplomas of the Univ., except 2 yrs. in the B.Sc.Agric. course. Students are also prepared for the examns. of the Univ. of Lond. The Coll. Certificate in Dairying (2 yrs.' course) is necessary for all who wish to become creamery managers in Ireland.

Commerce students can do 6 mos.' practical work in railway or accountants' offices, etc.

FEES for tuition, including College fee: Arts, £47; Science, £76; Engin., £78; Med., £200, including Hospl. fees; Dentistry, £218, including Hospl. fees; Music, £41.

RESIDENCE. Hostel for men and hostel for women (charitable trust, R.C. only); students are supervised by Officers of Residence.

Publications. Calendar (Easter), 6d.; Sessional Lists (June), 6d.

## THE YEAR 1930-31

NEW Post. Lectureship in Maths. through the medium of Irish.

EXTRA-MURAL WORK. Course of University Extension Lectures for Catholic workers.

RETIREMENT. Prof. Stockley (Engl.).

STUDENTS. Full-time: total, 607, including 57 graduates. Part-time: total, 8, including 4 graduates.

DEGREES. B.A., 64; B.Sc., 15; M.A., 10; B.E., 6; B.Comm., 9; M.Sc., 7; M.B., B.Ch., B.A.O., 7; M.D., 2; D.P.H., 1; B.Mus., 1.

## UNIVERSITY COLLEGE, GALWAY

VISITOR—H.M. THE KING IN COUNCIL.

PRESIDENT—ALEXANDER ANDERSON, M.A. Camb., D.Sc., LL.D.

REGISTRAR AND SECRETARY—Rev. J. Prof. HYNES, M.A., B.D.

LIBRARIAN—Prof. J. HOWLEY, M.A., D.Litt.

BURSAR—Prof. T. Walsh, M.A., M.D.

## PROFESSORS AND LECTURERS OF THE UNIVERSITY

PROFESSORS AND LECTUR	ERS OF THE UNIVERSITY
Anatomy	History
Shea, S., M.B., B.Ch., B.A.O. Prof.	O'Sullivan, Mrs. M. J. D., M.A.
ı Demr.	Prof.
Archæology, Celtic	Kennedy, Miss S. G., M.A.,
Hynes, Rev. J., M.A., B.D. Prof.	H.Dip.Ed. Lectr. (in Irish).
Chemistry	Irish Lang., Philol., and Lit.
Dillon, T., M.A., D.Sc. Prof.	O'Maille, T., M.A. Manc., Ph.D.
Clarke, Miss R., B.A., D.Sc. Asst.	Frei., D.Litt. Prof.
Barry, V., M.Sc. Asst.	Twick Madays
Classics. Ancient	Irish, Modern Lectr.
Fahy, Rev. T., M.A., B.D. Prof.	O'Raghallaigh, T., M.A., H.Dip.Ed.
Evans, Kathleen, B.A. Asst.	Asst.
Economics, Commerce, & Acctcy.	Law and Jurisprudence
McBryan, F., M.A., H.Dip.Ed. Prof.	Arkins, P. A., B.A., LL.B. Prof.
Buckley, L., B.Comm., H.Dip.Ed.	Mathematics
Lectr. (in Irish).  Education	Power, M., M.A., B.Sc. Prof.
Larkin, P., B.A., H.Dip.Ed. Prof.	M'Kenna, E., M.A., M.Sc.,
Cooper, G., B.A. (in Irish) Asst.	A.R.C.S.I. Lectr.
Engineering, Civil	Lawless, M., B.Sc. Asst.
Rishworth, F. S., B.E., B.A. Prof.	Medicine and Surgery
O'Connor, H. G., M.E. Asst.	Mahon, R. B., M.D., M.Ch.,
Engineering, Electrical	F.R.C.S.E. (Pract. of M.) Prof.
Griffith, W. G., B.Sc. Lond. Prof.	McDermott, E. N., B.Sc., M.D.,
English Language and Lit.	F.R.C.S.I. (Materia Med.,
Byrne, W. A., M.A. Prof.	etc.) Prof.
Donnellan, Catherine, B.A. Asst.	Morris, D. V., M.B., B.Ch., M.A.O.
Geology and Geography [Prof.	(Obst. and Gynæc.) Prof.
Mitchell, J., B.Sc., B.E., F.G.S.	(Ophth. and Ot.) Prof. Walsh, T., M.A., B.Sc., M.D.,
Buckley, L., B.Comm. (Geog. in	D.P.H., H.Dip.Ed.
Irish) Asst.	Prof. of Pathology and
German	Lectr. in Med. Jur. and
Shea, Mrs. M. M., M.A. Prof.	Hygiene.

O'Malley, M. G., M.B., B.Ch., F.R.C.S.E. (Practice of S.)
Prof. English, Adeline, M.B., B.Ch., B.A.O. (Mental Diseases)
Natural History
Lectr.

Natural History
Dinan, T. J., M.Sc.
Higgins, M. J., M.Sc.
Philosophy

Lectr.
Prof.
Asst.
Prof.

Philosophy [Prof. Howley, J. F. W., M.A., D.Litt.

Physics
The President
McHenry, J. J., M.A., D.Sc.
Nolan, F., M.Sc.
Asst.
Asst.

Physiology Donegan, J. F., B.Sc., M.B., B.Ch., B.A.O. Prof.

Romance Languages
O'Brien, W., M.A. Prof.

## GENERAL INFORMATION

Queen's College, Galway, opened in 1849, became a constituent College of the N.U.I. in 1908.

LIBRARY: 50,000 vols. LABORATORIES: Physics, Chem., Biol., Physiol., Path., Geol., Engin. Museums: Nat. Hist., Mat. Med., Gynæc., Anat. Dept.

Degree Courses in Arts, Celtic, Science, Law, Med., Engin., Commerce. Courses for Diplomas in Educn., Irish Studies, Commerce, and Public Health.

Med. degree students are required to spend 1 yr. at a Metropolitan Hospl. after a 4 yrs.' course in the College and 2 yrs. in the Galway Hospitals.

FRES. College, £2 (women, £1). Degree courses (approximately): Arts, £26; Science, £30 to £45; Law, £12; Medicine (including 2 years' General Hospital fees), £78; Engineering, £46; Commerce, £26. Post-graduate or research course, £4.

Scholarships open to students of the Coll. on graduation: 4 of £40.

RESIDENCE. The cost of board and lodging for a student varies from 25s. to 30s. a week. Every student is required to register under a Dean of Residence, who exercises supervision over the general conduct of students outside the precincts, and every woman student under a Lady Supt., who exercises supervision over their conduct within the precincts of the College.

There is an Appointments Board consisting of the President, the Deans of the Faculties and the Registrar.

Publications. List of licensed lodging-houses, free; College Calendar (1s. 4d.); Regns. for Degrees and Courses (8d.); Regns. for Scholps. and Diploma in Educn. (2½d.); Gaeltacht Scholarships (1½d.); Univ. Examn. Papers (post free, 1s. 8d.), from O'Gorman and Co., Galway.

## THE YEAR 1930-31

Honorary Degrees. LL.D.—Rev. Bro. Columba Thompson.

Students. Full-time: total, 535, including 34 graduates. Part-time: total, 20, including 5 graduates.

Degrees obtained. B.A., 23; B.Sc., 5; M.A., 1; M.Sc., 1; LL.B., 1; M.B., B.Ch., B.A.O., 7; M.D., 2; B.E., 3; B.Comm., 5. Dip.Ed., 46; H.Dip.Ed., 33; Dip. Irish Studies, 4.

## CANADIAN UNIVERSITIES

In Nova Scotia: Acadia, Dalhousie, King's College, St. Francis Xavier. In New Brunswick: New Brunswick, Mount Allison. In Quebec: Bishop's College, Laval, McGill, Montreal. In Ontario: McMaster, Ottawa, Queen's, Toronto, Trinity College, Victoria, Western Ontario. Western Provincial Univs.: Manitoba, Saskatchewan, Alberta, British Columbia.

#### GENERAL DESCRIPTION

[Contributed by A. Stanley Mackenzie, late President of Dalhousie Univ. An account by President Walter C. Murray, of the Univ. of Saskatchewan, of "University Development in Canada," is to be found in the Trans. Roy. Soc. Can., Third Series, 1922, vol. xvi. See also his article on "State Support and Control of Universities in Canada," in Trans. R.S.C., Sect. II., p. 19, 1925. See also "American Influence on the Higher Education of Canada," Trans. R.S.C., Sect. II., 1930, by Sir Robert A. Falconer, President of the Univ. of Toronto, and by the same author, "Higher Education in Canada," in the Book of Canada, published by the Canadian Medical Association, Toronto, 1930, pp. 139-151.]

THE word "university" is used very loosely in Canada, and in the following sketch a number of institutions which are in reality Colleges will be referred to. In this book twenty-one are listed, twenty-three in the Canada Year Book. It is probably not true to say that Canada has evolved a distinctive type of Univ.; and yet Canadian higher institutions of learning differ in many ways from the corresponding institutions in the British Isles and in the United States. One might divide Canadian Univs. into (1) those which are supported and controlled by a religious group: Laval, Montreal, Ottawa, St. Francis Xavier, St. Joseph's, by the Roman Catholics; King's, Bishop's, Trinity, by the Church of England; Mount Allison, Victoria, by the United Church of Canada (a union of former Congregationalists, Methodists, and part of the Presbyterians); Acadia, McMaster, by the Baptists; (2) those that receive state support and are subject more or less to state control: New Brunswick, Toronto, Manitoba, Saskatchewan, Alberta, British Columbia; and (3) those that are independent of Church and State and depend upon private benefactions: Dalhousie, McGill, Queen's, Western Ontario. In order to understand, however, the great diversity among the various universities, even among those in any one group, some reference to the history of the rise and growth of university education in Canada must be made.

All the older colleges, with the exception of Dalhousie and McGill, were established by the Churches, to meet the obvious need for native ministers and teachers in a new and far-flung country. The next step was an appeal to the State, often to both the Local Government and the

Home Government, for a grant-in-aid, which was usually made. As in practically all political divisions, except Quebec, there were other strong religious bodies besides the one to receive this grant, there was before long in the nature of things resentment by these other bodies, and religious and political strife was engendered. In many cases the College Question was inextricably mixed up with the struggle of the people for Responsible Government, for democratic rule instead of oligarchical Councils. The changes in the Universities run parallel in the main with the political development of Canada.

THE FRENCH COLLEGES. The oldest University in Canada is Laval. in Quebec City, growing out of the founding of a Seminary there in 1663. It is modelled after the French universities, and is a group of professional and graduate schools, and has wide degree-granting powers. There was for many years a branch of Laval in Montreal, but in 1920 it became a separate entity under the name of the University of Montreal. It, like Laval, is intimately associated with the Church, in the firm belief that education cannot be dissociated from religion. Both receive State aid, but are not under State control. The undergraduate work preliminary to these two universities is done by twenty-four Classical Colleges scattered through the Province of Quebec. These give the Bachelor degree. These institutions have altered little in their general character with the changes in the political life of the Dominion. Ottawa combines the University and the Classical College. Closely akin to the Classical Colleges of Quebec, but not necessarily associated with Laval and Montreal, is a group of Maritime colleges: St. Joseph's and St. Thomas' in New Brunswick, St. Mary's and St. Anne's in Nova Scotia, and St. Dunstan's in Prince Edward Island. St. Francis Xavier and Mt. St. Vincent, Halifax, recently chartered, are the only Roman Catholic colleges not of the French type, being more like the non-catholic institutions.

THE KING'S COLLEGES. The next stage in the development of higher education in what is now Canada was due to the arrival of the Lovalists from the American colonies. These people belonged mainly to the established Church of England, and, though intensely loval to the Mother Country and intolerant of republicanism, were yet imbued with advanced ideas of independence and democracy, and immediately made their presence felt. They wanted not only educational advantages for their children, but they wanted educational institutions which would be under the Church of England, believing that loyalty to Britain was almost a monopoly of those of that faith. There was thus introduced a political factor into the educational movement which had far-reaching consequences. The coming of the Loyalists led to the founding of what are called the King's Colleges. The first of them, and the only one which retains the name, was King's College, which was established at Windsor, Nova Scotia. In 1923 it removed to Halifax, and is intimately associated with Dalhousie. The nature of the association is that students in the Faculty of Arts and Science must register as students of the University, but may enrol as members of King's College, where they enjoy a corporate life similar to that of a college of Oxford. students of the two institutions are a unit for instructional purposes (except for certain subjects of the freshman year, where the King's students form a section by themselves), and the teaching staffs paid from the funds of each institution form a common Faculty. The University grants all degrees. The Faculty of Divinity of King's has no part in this association. The second King's College was established in 1800 as the College of New Brunswick, at Fredericton. On receiving a royal charter in 1828, it took the name of King's College (v. infra). The third, King's College, Toronto, received a similar charter in 1827. The precursor of these three colleges was undoubtedly King's College, New York, which, since the Revolution, has borne the name of Columbia University. All these Colleges were closely modelled after Oxford. The three Canadian King's Colleges practically all received grants, either in lands or money, or both, from the Imperial and Provincial Governments. In order to understand the cause of the educational struggles which took place in the first half of the nineteenth century it must be pointed out that their charters gave the control of these colleges to a Board composed mainly of officials of the Crown and adherents of the Church of England. The Church had accordingly a controlling voice in the College, and claimed exclusive privileges. The College was in reality a private institution receiving state aid, and those who were not members of the Church of England, and they were far in the majority, were thus taxed to support it and were cut off, in some cases entirely, from equal educational privileges. It is not difficult to see that this must inevitably have led to bitter controversy and strife. As the Governing Boards of the Colleges were largely identified with the oligarchical governing Councils of the Provinces, it is evident also that the educational and political causes would be inextricably mixed in the struggle of the many against the exclusive rule of the few.

THE SCOTTISH COLLEGES. The third stage was ushered in by the insistence of other religious denominations upon equal rights with the Church of England in the control of colleges already established, or upon being allowed to have colleges of their own with government grants as in the case of the King's Colleges. The lead was again taken in Nova Scotia. Dr. Thomas McCulloch, a Scot and a Presbyterian, had instituted at Pictou early in the nineteenth century Pictou Academy, which, though without degree-granting powers, acquired a high reputation for the scholarship of the men who were trained there (one was Dawson, the great Principal of McGill University). He was such a bonny fighter that, in spite of the bitter opposition of Governor and Council he received a provincial grant for Pictou Academy in 1819. Similar attacks on the existing state of affairs were made by Scotsmen in New Brunswick and Ontario. About this time Lord Dalhousie entered the arena, and, by the founding of Dalhousie College, broke for all time the ring of King's Colleges. He was another Scot, one who had experience as a General in the Napoleonic wars. During the war with the United States in 1812-14, the Province of Nova Scotia, of which he was then the Lieutenant-Governor, became possessed of a sum of about £11,000, which he used to found a college which was to be a direct protest against sectarianism and special privilege. By its Charter

it was to be "open to all occupations and sects of religion." It was also to be "on the same plan and principle as that of Edinburgh." founding in 1818 marks, therefore, one of the most important points in the development of Canadian higher education, the introduction of the Scottish type of university, where learning and scholarship were accented rather than the fine art of living, and where residential life was not looked upon as essential. Lord Dalhousie made one great mistake: he placed his infant college in the hands of some of the same officials as were the Board of King's College, and they kept its doors shut for twenty years. Their hands were forced, however, in 1838, and Thomas McCulloch became its first President. On his death, in 1843, the college was again closed, as the necessary financial support was not forthcoming, and it remained closed until 1863, when the spirit of union was taking hold of Canada in educational as well as political matters. The early history of McGill University is very similar to that of Dalhousie. received its first charter, a Provincial one, in 1801, as the Royal Institution for the Advancement of Learning. As McGill College, it received a Royal Charter in 1821, subsequent to a bequest of land and the sum of fro,000 by James McGill, a Scottish resident of Montreal. It was also non-sectarian and modelled on Edinburgh, and for a number of years had a very precarious existence, and was not able to live up to the hopes of its founder. With the appointment of Dawson as its Principal in 1855 began its rapid and brilliant career. Queen's (v. infra) is the third of the Canadian universities of the Scottish type.

THE SECTARIAN COLLEGES. There followed in rapid succession the establishment of purely denominational colleges, and it is interesting to note that it was during the period of most intense political strife. Baptists founded Acadia, at Wolfville, N.S., in 1838; Methodists, Mount Allison, at Sackville, N.B., in 1858; Scottish Roman Catholics, St. Francis Xavier, at Antigonish, N.S., in 1855; French Roman Catholics, St. Joseph's, at Memramcook, N.B., in 1864; not to mention others which have since lost their identity. All these are in the Maritime Provinces. In Ontario were founded Victoria, at Cobourg, by Methodists. in 1841; Queen's, at Kingston, by Kirk Presbyterians, in 1842; Knox, at Toronto, by Free Presbyterians (now purely a Divinity School), in 1843; McMaster, at Toronto, by Baptists, in 1857; Trinity, at Toronto, by Anglicans, in 1851; and Ottawa, by Roman Catholics, in 1849. In Quebec we find Bishop's College, founded in 1843, by the Anglicans. These denominational colleges demanded, and in most cases received, a share of State aid. In time the obvious wastefulness of this use of State money led to its discontinuance, and also led to efforts to find a better basis for higher education.

THE ATTEMPTS FOR UNION. From 1841, when the union of Upper and Lower Canada took place, to 1867, when the Dominion of Canada was formed, the spirit of union was abroad, and following this period we see a uniting of various subdivisions of Presbyterians and again of Methodists. Efforts to unite groups of colleges are much in evidence during this period. Efforts to unite Dalhousie and King's in Nova Scotia, which had begun in 1823, and which had been renewed many

times, always failed (but v. supra). The co-operation of Presbyterians and Congregationalists who closed their own small Arts Colleges, enabled Dalhousie to reopen its doors in 1863. Several attempts to bring about a federation of the colleges in Ontario begun in 1843 failed until 1887.

The London University Type. One of the many schemes of union proposed was the foundation of universities on the model of the University of London, with only examining and degree-conferring powers, which powers the constituent colleges were to hold in abeyance. An effort to initiate such a university in Toronto, in 1853, failed. So did the proposed founding of the University of Halifax, in 1876, fail. A similar effort in Winnipeg succeeded. The University of Manitoba, thus established, passed from being a "paper" university to the giving of instruction, first in Science, then in some departments of Arts also, then to the possession of professional schools, and finally to the full status of a State University.

THE TORONTO FEDERATION. A brief sketch of the history of the University of Toronto may serve to bring out the various stages through which the Canadian problem of higher education passed, and show the interesting form of federation which has proved so successful there. As stated above, King's College, Toronto, was given a Charter in 1827. It received a grant of land and was purely sectarian, Church of England. In 1837 its Charter was amended by modifying in some degree this Church control. Then followed the foundation of Victoria, Queen's and Knox (v. supra). King's was opened in 1843. Protests from other denominations brought about its secularization in 1849, its name being changed at the same time to the University of Toronto, and its control vested in the State. The Faculty of Divinity was abolished, and all denominational colleges were to be admitted to affiliation only as Divinity Schools. This refusal to recognize religion in education led to the founding of still more colleges (Trinity by the Anglicans, in 1851, St. Michael's by the Roman Catholics, in 1852, and McMaster by the Baptists, in 1857, all in Toronto, and to the continued opposition of Queen's and Victoria. In 1851 another change was made, using the University of London as a model. All teaching work was withdrawn from the University, this being relegated to affiliated colleges. For this purpose a new body was formed, University College, and the Faculty of Arts transferred to it, and the Faculties of Law and Medicine discontinued. The University was to manage the finances, conduct examinations and confer degrees. The teaching was to be done by Federated Colleges, of which University College was to be the first. It was to be undenominational. The denominational colleges did not enter into the scheme, and it failed to bring about the federation which was hoped for. Various causes led to the federation of 1887. In the first place, the Government withdrew in 1868 its grants to the denominational colleges. In the second place, the growth of science and the introduction of the conception of research and post-graduate work into the universities increased enormously the cost of maintaining educational institutions.

McMaster removed to Hamilton, July, 1930.

University of Toronto (and University College) felt the pinch equally with the denominational colleges, for its only source of revenue was from the Crown lands with which King's had been originally endowed. It accordingly applied to the Legislature for a grant from the Provincial treasury. Naturally the competing denominational colleges strenuously objected to this. But the spirit of union in Canada, which showed itself in the political union of 1867, was called upon, and not in vain, for in 1887 a scheme of Federation was accomplished. The essence of the scheme is a group of Arts or Divinity colleges gathered about a central university, supported and controlled by the State, the University conducting examinations, conferring degrees (except in Divinity), and giving the instruction in those branches of learning which are costly to conduct, or are only taken by few students, or are professional in character. The division of subjects between the Constituent Colleges and the University was set forth in the Act of 1887, but provision was made for change as future needs should dictate. Provision was also made for the affiliation of purely Divinity Schools like Knox and Wycliffe. these constituent Colleges and Divinity Schools were given representation on the governing bodies of the University. Victoria and St. Michael's and Trinity entered the Federation, the former moving from Cobourg to Toronto in order to do so; but Queen's and McMaster elected to remain independent. The University is operating to-day under the Act of 1906. The only change from the Act of 1887 which need be referred to in this sketch is that the University is no longer administered through a department of government, but by an independent Board of Governors appointed by the Lieutenant-Governor in Council. Moreover, academic appointments can be made only on the nomination of the President of the University. By these means the University was removed from the suspicion of political and sectarian interference, and a high character in its academic staff assured.

The Western Universities. It remains to deal in general with the State University, that is, the type of university supported and controlled by the State. The oldest of these is the University of New Brunswick, chartered as King's College, Fredericton, in 1828, under the control of the Church of England. It received its present name in 1859, when it was secularized and put under the direct control of the Department of Education of the Government of the Province, and, at the same time, given very modest financial support. The form of State University developed in Ontario has already been described. The four Western Universities are, however, those which have carried to its completion the State University Idea. This idea is that the State must provide and support university education for all its people, irrespective of the part which may be played by private interests, whether ecclesiastical or otherwise. The idea carries the corollary of state control. It is a natural extension of the idea of free schools, which were established in Nova Scotia in 1864, and in Ontario in 1871, and carries to its logical conclusion the doctrine of democratic government, that all its citizens must be educated. Closely associated with the idea of the State University is the conception that the University must return service to

the State. The governments expect to call for and to receive guidance and expert advice from the academic staff of the University, and look to them for the study and investigation of the natural resources of their Provinces. The Universities also carry the knowledge so acquired to every portion of the Province through a highly organized form of Extension service. This attitude is obviously not of British origin, but came to Canada from the United States. In the four Western Provinces, Manitoba, Saskatchewan, Alberta, and British Columbia, the respective governments have carried the idea to its logical conclusion of confining to the State University the power of conferring degrees. The constitutions of these four Universities are modelled so largely upon that of Toronto that it is unnecessary to refer to them in detail. Manitoba University is very like Toronto in that it has constituent Arts Colleges, as well as Affiliated Divinity and Junior Colleges; the same thing is taking place in the other three. Notwithstanding the youth of these Universities (Alberta opened in 1908, Saskatchewan in 1909, Manitoba in its present form in 1900, and British Columbia in 1915), they have all grown to be strong, vigorous institutions serving well their constituencies.

As the years have gone by, all these institutions, while maintaining individuality and evidences of their original form, have tended to uniformity in many important regards. Thus, they all require four years for the Bachelor (Pass) degree in Arts or in Science. Again, they have a common standard of preliminary education for admission to the course leading to these degrees. This standard is that attained by a satisfactory completion of three years of a High School Course superimposed on eight years in the Common Schools. This standard is called Junior matriculation. If a pupil has successfully completed the fourth year of the High School Course in the proper subjects, or passes the equivalent Senior matriculation examination, he can enter the second year and complete the course for the degree in three years. This practically amounts to saying that High Schools or Collegiate Institutes which have a fourth year course give in that year about the same work as is done in the first year of the Univ. course for the Pass degree. Ontario the High School Course leading to Junior Matriculation standard covers four years instead of three.

JUNIOR MATRICULATION. Students can satisfy the Entrance requirements of the Univs. either by examination or on certificate from a standard High School or accredited Preparatory School or Collegiate Institute or School, provided such certificate shows a Pass in the Required Subjects of matriculation. These required subjects differ somewhat from one Univ. to another. Practically all Univs. require for candidates for the B.A. degree the following six subjects: (1) English, (2) History, (3) Algebra (through quadratics), (4) Geometry (at least four books), (5) Latin, (6) a second foreign language. There is in nearly every Univ. a seventh subject; it is usually a science (in some cases specified, in others elective), but in many cases a third foreign language is accepted instead.

Where a course in Pure Science is given leading to the degree of B.Sc. the requirements are as above, except that the two foreign languages are French and German.

There is much more variation in the requirements for entrance to the courses in Applied Science or Engineering; but the best schools of Applied Science require in addition to Junior Matriculation a year in Arts and Science.

The curriculum for students of Medicine has been undergoing a change in all the Canadian Schools. In general the course of study requires 7 years following on Junior Matriculation. In some of the Univs. 6 of these years must be taken in the Medical School. In others the first 2 years (which are largely Pure Science) may be taken in any recognized Arts College.

There has been a similar advance in the standard of preliminary education required of students seeking admission to the study of Law. In the chief schools at least 2 years of Arts is required. At all the

Schools the Law course proper extends over 3 years.

The standard of preliminary education required of students entering upon the study of Dentistry is the equivalent of 2 years in Arts and Science, and is practically identical with that for Medicine.

ARTS COURSE. Speaking very generally, one can say that about one-half of the course for the degree of B.A. is prescribed and the other half elective; but these elective subjects are commonly to be distributed among certain broad groups of allied subjects in a specified way, varying with the individual Univs. The prescribed work includes English, History, two foreign languages, one of which is usually Latin (British Columbia and Manitoba require only one), Philosophy, Mathematics, and Science. In the case of the B.Sc. degree in Pure Science the two foreign languages required are French and German.

A feature of Canadian Univs. which distinguishes them from the typical Univs. of the United States is the provision made for the ambitious student and the student who wishes to specialize during his course for the Bachelor degree. This is accomplished by the provision of the system of Honour courses. In this system a student who shows the necessary aptitude is permitted to take special classes, which in some instances are in extension of the regular classes, and in other cases are restricted to Honour students. In some Univs. the Honour classes are confined to the third and fourth years of the course; in others, as in the case of Toronto, they are given in all four years, and there is also a special Honour matriculation. In general, also, the number of prescribed classes is reduced, so that the student not only goes more deeply into each subject, but specializes to a greater extent than the Pass man is allowed to do. On the completion of an Honour course the student receives a degree with Honours. No small measure of the academic success of Canadian students in post-graduation work in home and foreign Univs. is to be attributed to this system.

By a proper combination of studies a student can complete a combined course for the degree in Arts or Science and that in a professional faculty in a year (in some cases, two years) less than the sum of the years required for each.

LENGTH OF SESSION. The Canadian Univs. open about October 1, and close in May or early in June. The average length of the session

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is 32½ weeks for all faculties, except those of Medicine and Dentistry, which are 4 weeks longer. Of the 32½ weeks, 26 are given up to actual lecturing, and the remainder to vacations, examinations, and closing exercises.

CONSOLIDATION OF THE COLLEGES IN THE MARITIME PROVINCES. During the last few years a great deal of attention and consideration has been given to this question, which in one form or another is a century-old problem (see article by Murray referred to above). It has come prominently to the fore now because of the impossibility of so many small institutions (mostly sectarian) in a region containing only a million people being able to keep pace with the financial demands of modern education. The Carnegie Foundation for the Advancement of Teaching was invited to send experts to make a survey of the situation. They did so, and made a report, in which they advised that all these institutions should move to Halifax and join with Dalhousie, already there, in forming a strong central University. Each constituent was to maintain its name, identity, individuality, organization, and funds, but give up its examining and degree-granting powers (except in Divinity) to the Univ. The Colleges should not teach the scientific subjects nor those subjects for which there would be a small demand, which should be given by the Univ. In general, the Colleges should restrict themselves to the Humanities. The Univ. would conduct all professional schools. The Colleges were to be residential. It will be seen that the scheme was something between that of Oxford and that of Toronto. It was a fair inference to be drawn from the report that, if the various institutions in question would get together, and the governments concerned make a grant-in-aid to the central Univ., the Carnegie Corporation of New York would give the scheme very generous aid. Representatives of the educational institutions and interests held many conferences and agreed upon a scheme of consolidation, and the Carnegie Corporation promised a gift of \$3,000,000. At this stage the scheme was halted, for the time being at least, by the refusal in succession of the Univ. of New Brunswick (non-sectarian), St. Francis Xavier's College (Roman Catholic), and Acadia College (Baptist) to enter it. In the meantime, King's College (Anglican) moved from Windsor to Halifax, and entered into a close association with Dalhousie Univ. (non-sectarian). The students of both institutions are taught as one body by the combined staffs, except in certain freshman classes (and in Divinity). King's holds in abeyance her degree-granting powers (except in Divinity), and the Univ. conducts all examns. and grants degrees. On the understanding that King's would raise the sum of \$400,000 for the erection of the necessary residential buildings, the Carnegie Trustees undertook to provide \$600,000 to be used as an endowment for the payment of an instructional staff for the combined students. The necessary sum was raised and the buildings erected. Mount Allison Univ. (United Church) has recently decided to remain at Sackville (N.B.). The original scheme of confederation having thus failed, the Carnegie Corporation offer has lapsed. There is no degree granting educational institution in the adjoining colony of Newfoundland, but the various interests there are very favourable toward the general scheme of a confederation of the educational forces of Eastern Canada. They have recently organized a Junior College at St. John's for the first two years of the work for the Arts degree. The Carnegie Corporation made a grant-in-aid for a period of five years.

#### NATIONAL CONFERENCE OF CANADIAN UNIVERSITIES

The Thirteenth Conference was held at Chateau Laurier and the Univ. of Ottawa, Ottawa, on May 22-24, 1929. The subjects discussed were: Undergraduate Preparation for Post-graduate Study; Graduate Work at McGill Univ. (Scientific and Medical subjects); Graduate Work in Toronto (Non-Scientific Subjects); Mathematics and its Relations to other Univ. Studies; the Sabbatical Year; Should Canadian Univs. insist on Four Years of High School?; Adult Education; The Adult Education Work of the Univ. and the Public Library; Adult Education in Agriculture (Sask. Univ.); Radio in Education; Class Consciousness as a Factor in Adult Education; The Meiklejohn Experiment; Recent Ednl. Experiments at the Univ. of Minnesota. The Conference also received a Report of the Medical Schools of a Committee on Dental Education and circulated it to the Deans.

President for 1930—Mgr. Camille Roy, L. ès L. Sorbonne, D.Ph., Laval University, Quebec.

The Fourteenth Conference was held at the Univ.of Toronto, on May 26-27, 1930. The subjects discussed were: What is a Liberal Education?; A. Science: The Humanism of Science; B. Literature: (i.) The Classics in a Liberal Education; (ii.) The Educational Value of the Study of Literature; C. Mathematics: (i.) Maths. and the Art of Thinking; (ii.) Maths. as a Preparation for Science; D. The Effect of Large Commerce and Applied Science Schools on the Ideals and Purposes of the Arts Faculty; Relation of Univ. and Secondary Schools: A. Province-wide Examns. in Secondary Schools; B. The Importance of Honour Matriculation Work in Secondary Schools, for (i.) Honour Courses in Arts, (ii.) Medicine and Engineering; C. How can First-Class Honour Graduates be induced to make Teaching a Life Work?; University Scholarships; The Tendency of Athletics in Canadian Colleges: Do they Lower Regard for Intellectual Achievement?

President for 1930-31—President W. Sherwood Fox, Ph.D., Litt.D., F.R.C.S., Univ. of Western Ontario.

The 1932 meeting is to be held in Vancouver.

The Reports of the Conferences can be obtained from the Secretary, President Carleton Stanley, Dalhousie Univ., Halifax, N.S.

# Degrees in Divinity for Students belonging to the Anglican Church in Canada

The Church Universities and Theological Colleges in Canada having entered into an agreement to adopt a uniform standard for degrees in Divinity, all such degrees are now only conferred in accordance with Canon X of the General

Synod of Canada, and only on examn. by a Joint Board, including the Archbishop of Rupert's Land (Chairman), and representatives of the Univs. of King's, Bishop's, and Trinity Colleges, Montreal Diocesan, Wycliffe (Toronto), Huron (London, Ont.), St. John's (Winnipeg), Emmanuel (Saskatoon), St. Chad's (Regina), Anglican Theol. Coll. of B.C.

#### NOVA SCOTIA TECHNICAL COLLEGE, HALIFAX

This institution represents the principal effort of the province in education of University grade. It is supported entirely from provincial revenues. Through a co-operative agreement, a uniform matriculation and a uniform engineering course covering the general work of the freshman and sophomore years are carried out entirely in the Univs. of Acadia, Dalhousie, King's, Mount Allison, St. Francis Xavier, and St. Mary's College. On successful completion of this course, the student proceeds to the Technical College without examn. for the professional work of the last 2 of the 4 yrs.' course. Here the studies are differentiated and the student elects either Civ., Elec., Mech., or Mining Engineering. The degree given is that of B.Sc. The Technical Coll. confines its attention entirely to the work of the junr. and senr. yrs. It is equipped principally for teaching the engineering courses and commercial testing of industrial materials and natural resources, and incidentally for scientific research. Tuition fees: \$75 p.a. for British citizens, \$150 for those of other origins. Twenty county scholarships of \$75 p.a. are available for Nova Scotians. The buildings and equipment represent a provincial investment of about \$600,000. [Contributed by the Department of Educn., N.S.]

## MARINE BIOLOGICAL STATIONS, v. Appendix XXIV. B. I.

## THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

The object of the Foundation, which was established in 1906 with resources which now amount to 31 million dollars, is to provide retiring allowances and pensions, and, "in general, to do and perform all things necessary to encourage, uphold, and dignify the profession of the teacher and the cause of higher education." It operates both in the U.S.A. and in Canada. The following classes of persons are eligible for retiring allowances: (1) A person in an institution on the associated list who (a) is 65 years of age and has served not less than 15 years as professor, or not less than 25 years as instructor or as prof. and instr., or (b) has served 25 years as prof. or 30 years as instructor as prof. and instr., and who is shown by medical examn. to be entirely unfitted by disability for continuing the work of teacher; (2) a widow who has for 10 years been the wife of any teacher of class (a) or (b). The direction of the Foundation is entrusted to a board of 25 trustees, mostly university and college presidents. The offices of the Foundation are at 522 Fifth Avenue, New York City.

The list of associated institutions includes Alberta, British Columbia, Dalhousie, McGill, Manitoba, Queen's, Saskatchewan, and Toronto Up to June 1931, 1828 allowances and pensions had been granted, including

103 in Canada and 5 in Newfoundland.

In addition to its work in connexion with the payment of pensions the Board of Trustees has undertaken the issue of various publications and their free distribution. Among these are bulletins on Medical Education in Europe, Education in the Maritime Provinces of Canada, Games and Sports in British Schools and Universities, and the Quality of the Educational Process in the United States and Europe.

#### NATIONAL COUNCIL OF EDUCATION

The National Council of Education, Canada, was organized at a Conference on Education in relation to Citizenship held in Winnipeg in 1919. With the co-operation of Universities and Departments of Education the Council is developing a Bureau of Education, and has organized a system of National Lectureships whereby eminent lecturers are brought from Great Britain to Canada. The Bureau facilitates exchange of information between the provincial depts. of Education, the diffusion in Canada of ideas and information from outside the Dominion and vice versa. Triennial Conferences on Education are held, the next of which will be in Toronto in 1932. Executive Secretary, Boyd Building, Winnipeg.

Canadian Students in the Universities of the United Kingdom, v. Appendix XXII.

The National Federation of Canadian University Students, inaugurated Dec. 1926. First Annual Conference held at Univ. of Toronto, Dec. 1927; 2nd at Queen's Univ., Kingston, Ont., Dec. 1928. The 2nd Imperial Conf. of Students was held at the Univ. of Montreal, Quebec, Sept. 1929. No meeting held in 1930, owing to lack of funds. The 1st tour of Canadian students to Europe took place in the summer of 1930. Exchange of students for 1 yr.'s study before graduation arranged with member Univs.

Secretary-Treasurer—Percy Davies, Clyde, Alberta; Commission I. (Student Problems)—P. Boucher, Maison des Etudiants, Demontigny St. East, Montreal; Commn. II. (Travel)—A. Gordon Burns, Hart House, Univ. of Toronto.

THE CANADIAN FEDERATION OF UNIVERSITY WOMEN. Travelling post-graduate scholarship, v. Appendix XXIII. 21.

Scientific and Industrial Research, v. Appendix XXIV.

STATISTICAL TABLES relating to Canadian Universities and Colleges are published by the Dominion Bureau of Statistics, Ottawa, in its Annual Survey of Education in Canada, price 50 c.

# ACADIA UNIVERSITY, WOLFVILLE, NOVA SCOTIA

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(Canadian Hist.) Spl. Lectr. Household Economics

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Dean of School of H.E. O'Blenis, Clarabelle, B.Sc. Instr. Cavenagh, Christine, B.Sc. Instr. Glendinning, Olive M., B.Sc.

(Institution Management) Instr. ..... (Art) Instr.

Library Science [Instr. Ingraham, Mary Kinley, M.A.

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McGill Instr.

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Assoc. Prof.

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Cook, T. W., M.A., Ph.D. Yale

Romance Languages
Massey, E. R., M.A. (Brown) Prof.

Hilborn, H. W., M.A. Tor.

Assoc. Prof.

Theology and Philosophy Spidle, S., B.D., Ph.D. Clark

Prof.

MacDonald, J. H., C.B.E., D.D.

Prof. of Church Hist. and
Bible Lit.

#### Department of Music

Collins, E. A., Mus.B. Camb., F.R.C.O., Dean of School of Music, Piano, Organ, Theory. Newnham, F. L., L.R.A.M., A.R.C.M., Instrn., Organ and Voice.

Brown, Jean C., B.Mus., Piano. MacDonald, Ruth B., Voice.

Langley, Beatrice J., Cert. Roy. Conserv., Berlin, Violin. ..... Violoncello.

Runge, Gladys E., A.R.C.M., Piano. Archibald, Edith, Violin.

#### GENERAL INFORMATION

Founded in 1838 by the N.S. Baptist Educational Society, Acadia College was incorporated in 1840 by Act of the N.S. Legislature, with the powers of a University. In 1896 an endowment of \$100,000 for the Theol. Dept. was received under the will of G. P. Payzant. The Board of Governors is appointed by the Baptist Convention of the Maritime Provinces, but the students are subject to no religious tests.

LIBRARY: 56,000 vols. Museums: Biol., Ethnol., Geol., Hist. LABORATORIES: Biol., Chem., Geol., Physics, Engineering. Observatory: Meteor. and Astron.

DEPARTMENTS. Arts and Sciences, Theology, Applied Science, Household Economics, Music.

Degree Courses. 4 yrs.—B.A., B.A. (Theol.), B.Sc., B.Sc. (Hd.Ec.); 3 yrs.—B.Mus.; 1 yr. (graduate study)—M.A.; 2 yrs.—B.D. The B.Sc. Engineering courses enable graduates to enter the 3rd year classes of McGill Univ. and N.S. Tech. Coll. Some of the B.A. and B.Sc. courses enable graduates to enter the 2nd yr. of the Dalhousie Law School, Halifax, and the Med. Dept. of McGill Univ., respectively.

FEES for tuition: in Arts and Sc. or Theol., \$125 (board provided at \$7 to \$7.50 per week, including room); in Appl. Sc. (2 yrs.), \$140. Lab. fees extra, about \$30. Other fees bring total cost to \$430 per year.

RESIDENCE. College hostels provide accommodation for 70 men and 228 women; University Dining Hall capacity, 600.

Publications. Bulletin, 25 cents p.a.; Calendar, number issued in July.

ACADIA 375

## THE YEAR 1930-31

BENEFACTIONS. \$83,000.

Developments. Extension work without degree credit, in which a series of lectures was given to forty communities.

Extra-mural Work. Thirty-five persons holding Correspondence courses.

VISITS OF TEACHERS FROM OTHER UNIVS. Prof. W. H. Coleman, D.Litt., of Bucknell Univ.

RETIREMENT. Prof. H. C. Mills (Education) to take a position at the Univ. of Buffalo, N.Y.

Honorary Degrees. D.D.—Rev. Richard Ferguson Dixon, Wolfville, N.S.; Rev. Elbert Edward Gates, B.A., Hartford, Conn.; Rev. Arthur Silas Lewis, B.A., Cleveland, Ohio; Rev. Joseph Chandler Robbins, B.A., New York. D.C.L.—William Currier Kierstead, Fredericton, N.B.; Roland George Dwight Richardson, Providence, R.I. D.Sc.—William Harding Longley, Baltimore, Md.

STUDENTS. Full-time: total, 480, including 7 graduates. Part-time: total, 24, including 10 graduates.

DEGREES. B.A., 62; B.Sc., 15; B.Sc. (H. Econ.), 9; M.A., 4; M.A. (Th.), 2; B.A. (Th.), 6; B.Th., 4; Master of Music, 1.

## UNIVERSITY OF ALBERTA, EDMONTON

Telegraphic address—VERA (A.B.C. Code).

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ASSISTANT REGISTRAR-G. B. TAYLOR, M.Sc.

LIBRARIAN-D. E. CAMERON, M.A. Edin.

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Agriculture, v. infra

Anatomy. [Prof. Revell, D. G., B.A., M.B. Tor. Shaner, R. F., Ph.D. Harv. Prof. Greene, E., M.D., C.M. McG., F.R.C.S. Edin., F.A.C.S. Assoc. Prof.

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Demr. Huckell, R. G., M.D., C.M. McG.

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Bacteriology, v. Med.

Bio-Chemistry

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Tor. Asst. Prof. Cantor, M. M., B.Sc., M.D. Man.

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Asst. Prof.

Brown, A. B., B.Sc. Edin., M.Sc. McG. Lectr.

Chemistry

Shipley, J. W., M.A. Man., Ph.D. Harv., F.R.S.C. Prof.

Walker, O. J., B.A. Sask., M.A. Harv., Ph.D. McG.

Assoc. Prof.

Sandin, R. B., M.Sc., Ph.D. Chic. Assoc. Prof. Boomer, E. H., B.Sc., B. Col.,

M.Sc., Ph.D. McG. Asst. Prof. Stover, N. M., M.Sc., Ph.D. (Ill.) Asst. Prof.

Classics

Alexander, W. H., M.A. Tor., Ph.D. Calif. Prof. Misener, Geneva, M.A. Qu., Ph.D.

Chic. Prof.

Hardy, W. G., M.A. Tor., Ph.D. Chic. Assoc. Prof.

Cutt, T. M., M.A. Tor. Instr.

Dentistry, v. infra

Drawing and Descr. Geom.

Adam, J., M.A. Assoc. Prof. Economics, v. Pol. Econ.

Engineering, Civil & Municipal Wilson, R. S. L., B.Sc. McG.

(Dean of Fac. Applied Sc.).

Fellow.

Robb, C. A., B.Sc. McG., M.S.	Law
70 (	Weir, J. A., B.A. Ox., LL.B. Sask.
M.I.T. Prof.	
Morrison, I. F., B.S. M.I.T. Prof.	Dean.
Webb, H. R., M.Sc. Asst. Prof.	Ford, Hon. Mr. Justice F., B.C.L.
Hardy, R. McD., B.Sc. Man., M.Sc.	Trin. Coll. Tor., D.C.L. Tor.
McG Sessional Lectr.	Hon. Prof.
Seymour, H. L., B.Sc. Tor.	MacIntyre, M. M., B.A. Mt. Allison,
Seymour, II. E., D.Sc. 101.	LL.M. Harv. Asst. Prof.
Special Lectr. in Town	
Planning.	Tweedie, Hon. Mr. Justice
Engineering, Electrical	Special Lectr.
MacLeod, H. J., B.Sc. McG., Ph.D.	3 Sessional Lectrs.
Harv., M.Sc. Prof.	I Sessional Instr.
Cornish, W. E., B.Sc. Man. Lectr.	
Cornish, W. E., D.Sc. Man. Lecti.	Mathematics
Porteous, J. W., B.Sc. Instr.	Sheldon, E. W., M.A. McG., Ph.D.
English	Yale Prof.
Broadus, E. K., M.A. Chic., Ph.D.	Campbell, J. W., M.A. Qu., Ph.D.
	Chic. Prof.
Gordon, R. K., B.A. Ox., M.A.,	Cook, A. J., M.A. Harv., Ph.D.
Ph.D. Tor. Prof.	Chic., B.Sc. Assoc. Prof.
Jones, J. T., B.A. Ox., M.A.	Keeping, E. S., B.Sc. Lond., D.I.C.
Asst. Prof.	Asst. Prof.
Fisher, J., B.A., B.Litt. Ox. Instr.	Medicine, v. infra
Gilbert, L. A., M.A. Tor. Instr.	1,200,007,00, 11 11,970
Gilbert, L. A., M.A. 101.	Mining Engineering
Entomology [Prof.	Pitcher, N. C., B.Sc. McG. Prof.
Strickland, E. H., M.Sc. Harv.	
	Cameron, A. E., M.Sc. McG., D.Sc.
French and Ger., v. Mod. Langs.	(Metall.) Prof.
Geology	Modern Languages
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	Harv., O.I.P. Prof.
	(Dean of Fac. Arts and Sc.).
Warren, P. S., B.A., Ph.D. Tor.,	Coar, J. F., M.A., Ph.D. Harv.
A.R.C.S. Lond. Assoc. Prof.	
Rutherford, R. L., Ph.D. Wisc.,	Prof. (German).
M.Sc. Asst. Prof.	Sonet, E., B. ès L. Lyons, M.A.
	Alta., D. ès L. Rennes
History [Prof.	Prof. (French).
Smith, G. M., B.A. Tor., M.A. Ox.	Owen, F., M.A. Tor., Ph.D. Chic.
Long, M. H., B.A. McM., M.A. Ox.	Assoc. Prof. (Ger.).
Assoc. Prof.	de Savoye, H., B.ès L. Paris, LL.B.,
Collins, R. W., M.A. Ac., Ph.D.	
Col. Asst. Prof.	O.A. Asst. Prof. (French).
	Allard, H., M.A. Man., B.A. Ox.
Household Economics	(French) Lectr.
Patrick, Mabel, B.A. Tor., M.A.	Rev. Brother Rogatian, F.S.C.
Col. Director, Assoc. Prof.	Lectr. (Spanish).
McIntyre, E. H., M.S. Ames, B.Sc.	Philosophy
Instr.	MacEachran, J. M., M.A. Qu.,
Doyle, Margaret M., B.Sc. Minn.	Ph.D. Leip. Prof.
	Macdonald, I., M.A., D.Litt.
Instr.	,,
Duggan, Grace, B.Sc. Asst.	Edin. Assoc. Prof.

Lazerte, M. E., B.A. Tor., M.A., B.Educ., Ph.D. Chic. Director, Sch. of Edn., Assoc. Prof. Rev. Brother Philip, M.A. Tor., Ph.D. Cath. U. of A. Asst. Prof. Smith, H. E., B.A. Ill., Ph.D. Cal., M.A., B.Educ. Asst. Prof. of Edn. 12 Demrs. in Edn. Physics Smith, S., M.A., B.Sc. Ox., F.R.S.C. Prof. Lang, R. J., B.A. McM., M.A., Assoc. Prof. Ph.D. Tor. Nichols, L. H., B.A. McG., M.A. Asst. Prof. Gowan, E. H., Ph.D. Ox., B.A., Lectr. B.Sc. Physiology and Pharmacology Downs, A. W., M.A. Phila., M.D. Penns., D.Sc. McG. Gelfan, S., B.A., Ph.D. Calif. Asst. Prof. Tor., M.A. Ferguson, J., B.A. Lectr. Stanf. Hamilton, K., B.A. Tor., B.A., M.B., B.Ch. Ox., M.R.C.P. Demr. Lond. Political Economy Prof. Elliott, G. A., M.A. Man. Hewetson, H. W., B.A. Tor., M.A. Lectr. B.C. Harvey, W. B., B.A., LL.B., M.A. Sessional Lectr. Man. [Assoc. Prof. Zoology Rowan, W., D.Sc. Lond., F.Z.S. Hughes, Winifred, M.A. Sask., Ph.D. Chic. Asst. Prof.

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(for subjects of first 2 yrs.—Anat., etc., v. supra)

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C.M., D.P.H. McG., L.R.C.P.,
M.R.C.S. Dean.

Shaw, R. M., B.A. Dal., M.D., C.M., D.P.H. McG. Prof.

Vango, H. M., M.D., C.M. McG. Harris, L. C., M.D., C.M. McG. Demr. Asst. Prof. Simpson, Greta, B.Sc. Demr. 3 Demrs. Dermatology Pediatrics Orr, H., O.B.E., M.B., D.P.H. Tor., Leitch, D. B., B.A., M.B. Tor., F.R.C.P. Can. Clin. Prof. F.R.C.P. Can. Clin. Prof. Gynæcology and Obstetrics Pharmacology, v. Physiol. Conn, L. C., M.D., C.M. McG., Pharmacy and Mat. Med. F.A.C.S. Prof. Dunn, F. A. S., Ph.C. Tor., M.P.S. Harrison, J. D., M.D., C.M. McG., Gr. Bn., M.Sc. Prof. F.A.C.S. Assoc. Prof. Matthews, A. W., B.Sc. Phm., Baker, J. O., M.D., C.M. Qu. M.Sc. Asst. Prof. Assoc. Prof. Holmes, C. U., M.B. Tor. Instr. Psychiatry Day, Allan, M.B. Tor. Instr. Baragar, C. A., B.A., M.D., C.M. Medicine and Clinical Medicine Man. Lectr. Cook, E. H., M.B., D.S. Durh. Pope, E. L., B.A. Qu., M.D., C.M. Lectr. M.R.C.P. Lond., McG., Public Health F.R.C.P. Can. Prof. Bow, M. R., B.A., M.D., C.M. Qu., Jamieson, H. C., Tor., M.B.D.P.H. Tor. Assoc. Prof. F.R.C.P. Can. Assoc. Prof. Jenkins, R. B., M.D. Man., D.P.H. Bell, I. R., B.A., M.B. Tor.. Tor. F.R.C.P. Can. Lectr. Assoc. Prof. (Therap.). Surgery and Clinical Surgery Hurlburt, C. W., M.B. Tor. Munroe, A. R., M.D., C.M. McG., Clin. Prof. (Cardialogy). F.R.C.S. Can. Prot. of Surg. Scott, W. H., M.D., C.M. McG., Gray, G. C., M.B. Tor., F.R.C.S. F.R.C.P. Can. Asst. Prof. Can. Assoc. Prof. Lectrs.: Wilson, W. A., M.D., C.M. McG., Blezard, J. A., M.B., M.D., C.M. F.R.C.S. Can. Assoc. Prof. Qu. Hepburn, H. H., M.D., C.M. McG., Proctor, R., M.D. Man. F.R.C.S. Edin., F.A.C.S. Scott, J. W., M.D., C.M. McG. Asst. Prof. Hamilton, K., B.A. Tor., B.A., Blais, A., M.D., B.S. Laval M.B., B.Ch. Ox., M.R.C.P. Asst. Prof. Lond. Mewburn, F. H. H., B.Sc., M.D., 2 Instrs., 2 Hon. Instrs., 2 Demrs. C.M. McG., F.R.C.S. Can. (Orthop.) Clin. Prof. Ophthalmol. and Oto-Laryngol. Smith, E. C., M.D., C.M. McG., Wells, R. B., M.B. Tor., F.A.C.S. F.R.C.S. Can. Clin. Prof. Clin. Prof. Gillespie, W. F., M.B. Tor., M.A. Jamieson, C. V., M.B. Tor. Asst. Prof. Clin. Prof. Petitclerc, J. L., M.D. Laval 2 Demrs. Asst. Prof. Greene, E., M.D., C.M. McG., PathologvOwer, J. J., B.A., M.D., C.M. F.R.C.S. Edin., F.A.C.S. McG. Lectr.

6 Instrs.

Prof. and Provincial Serologist.

#### Dentistry

Bulyea, H. E., D.M.D. Harv. Prof. Gilchrist, H. A., D.D.S. Northwn. Assoc. Prof.

Hamilton, W. S., L.D.S., D.D.S. Tor. Asst. Prof.

#### Lecturers:

Craig, W. P., M.A. Wash. and Jeff., D.D.S. (Northwestern). Hope, G. J., L.D.S., D.D.S. Tor.

Roberts, J. G., L.D.S., D.D.S. Tor. Gemeroy, G. A., L.D.S., D.D.S.

Mason, A. B., D.D.S. Penn. Sneddon, S. M., L.D.S., D.D.S.

Strong, O. F., D.D.S. West. Res. Bradley, R. W., D.D.S. McG.

Instructors:

Mercer, F. S., L.D.S., D.D.S. Tor. Thurston, G. B., L.D.S., D.D.S. Tor.

Lloyd, V. M., L.D.S., D.D.S., B.Sc. Tor. Demr.

#### Industrial Laboratories

Kelso, J. A., M.Sc. Qu. Director Lynn, S. C., B.Sc. Asst.

Industrial Research Profs.

Stansfield, E., M.Sc. Manc.

(Fuels).
Clark, K. A., M.A. McM., Ph.D.
Ill. (Road Materials).

#### Physical Education

Director

Bakewell, Edna G., B.A. Asst. Dir.

Correspondence Courses
MacKenzie, D. S. Director.

## Department of Extension

Corbett, E. A., M.A. McG.

Director.

Montgomery, Jessie, B.A. Libn. Cameron, D., B.Sc. Lectr.

#### AFFILIATED INSTITUTIONS

St. Stephen's College, Theological College of the United Church of Canada, is situated on the University Campus. Principal—A. S. Tuttle, M.A., D.D., Mt. All., Prof. of Philos. of Religion. 3 other Profs.

St. Aidan's College and Hostel (Anglican)—affiliated 1919. Warden—Rt. Rev. H. A. Gray, D.D., LL.D., Bishop of Edmonton.

St. Joseph's Catholic College (Arts). Rector—Rev. Brother Rogatian, F.S.C. Affiliated to the Univ. in May 1926 as an Arts Coll. working under the authority of the Senate; occupies a site on the Univ. Campus on which a combined residential and teaching building has been erected.

The Provincial Institute of Technology and Art, Calgary, operates directly under the authority of the Dept. of Education. Affiliated May 13, 1926. Principal—W. G. Carpenter, B.A., LL.D.

#### GENERAL INFORMATION

For the early history of the University, created by Act of the Legislative Assembly (Alberta), 1906, see Year Book for 1929. In 1919—20 the large postwar increase in the number of medical students necessitated the construction of a new Medical Building. In the same session the creation of the office of Director of the School of Pharmacy completed the evolution of the School from a Dept. under the Fac. of Medicine to an independent unit. Similarly in 1928—1929 Commerce and Household Economics were raised to the Status of Schools and provision made for a School of Education, the latter taking over from the

Provincial Normal Schools the professional training of Univ. graduates. The Provincial Legislature has established a close relationship between the Univ. and the Professions, and the Senate now has jurisdiction over the educational standards of Architects, Chartered Accountants, Dentists, Engineers, Land Surveyors, Lawyers, Pharmacists, Physicians and Surgeons, Registered Nurses, Optometrists, and Veterinary Surgeons.

The Univ., whose property covers 637 acres, is situated in the city of Edmonton, the capital of the Province of Alberta. The grounds run along the wooded bank of the North Saskatchewan river and afford ample room for

playing fields and the expansion of the building scheme.

LIBRARY, 42,674 vols. LABORATORIES for all scientific courses; museum; herbarium; farm; agricultural experimental plots.

FUEL TESTING LABORATORY. For the detailed study of the chemical and physical properties of Alberta coals; also for investigating industrial problems such as coking, carbonizing, briquetting, combustion, storage and purification of coal.

RESEARCH LABORATORIES OF DEPARTMENT OF FIELD CROPS. These laboratories have been developed during the past six years for the investigation of special problems underlying crop production in Western Canada. Progress has been greatly facilitated by grants-in-aid of special researches received from the National Research Council. The programme of investigation covers such important problems as the nature of resistance to frost, drought, and disease; methods of eliminating false wild oats; and factors affecting the milling and baking qualities of wheat.

FACULTIES. Arts and Sciences (incl. Schools of Household Econ., Pharmacy [degree], Commerce and Education); Applied Science (Civil, Mining, Chemical, and Electrical Engineering and Architecture); Medicine (including Dentistry, Pharmacy [diploma], and Nursing); Law; Agriculture.

MATRICULATION examns. are conducted in April and Sept., under control of High School and Univ. Matricn. Examns. Board of the Province. Equivalent examns. by recognized authorities in the British Dominions are accepted pro tanto for admission.

Degree Courses. 4 yrs.—B.A., B.Sc. in Arts, B.Com., B.Sc. in Household Ec., in Engin. (Civ., Elec., Chem., or Mining), in Archit., or in Pharmacy; 3 yrs. (after qualifying in a Provincial Sch. of Agr.)—B.H.Ec. (in Household Econ.), B.Sc. in Agric.; 6 yrs.—M.D.; 5 yrs.—B.Sc. in Nursing, LL.B., D.D.S. Combined B.A. and B.Sc. in Agric.—6 yrs.; B.A. and B.Sc. in Applied Sc.—6 yrs.; B.A. and M.D.—8 yrs.; B.A. and LL.B.—6 yrs. The Agric. course is preceded by preliminary training at one of the Provincial Agric. Schools.

A Bachelor may obtain the M.A. or M.Sc. by  $1\frac{1}{2}$  yrs. of advanced study or investigation or the B.Ed. by  $2\frac{1}{2}$  yrs. of advanced study. The D.Sc. is conferred for distinction in original research in the field of science. The B.D. is open to B.A. students of affiliated Colls. on completion of approved courses. The LL.D. is honorary.

OTHER COURSES: For Licence in Pharmacy; Correspondence Courses for Teachers (Senr. Matricn. subjects); Summer Session in co-operation with the Summer School for Teachers conducted by the Provincial Dept. of Educn.; Professional qualification for the Teacher's High School Certificate issued by the Provincial Dept. of Education; 3 mos.' course in P.H. Nursing for Registered Nurses; Provincial Dairy School short courses; 3 yrs.' course for qualification of Regd. Nurse.

A system of Exchange Lectures is carried on in co-operation with Manit., Sask., and British Columbia Universities.

FEES, tuition per session: Arts (including 4 yrs.' degree courses in Pharmacy and Household Economics and 1st yr. Commerce), \$55; subsequent years B.Com., \$100; Appl. Sc., \$85 to \$125; Law, \$110; Med., \$140 to \$190; Dent., \$140 to \$210; Agric. (including 3 yrs.' course Household Economics), \$60. Licentiate Pharmacy, \$100 to \$120. Students' Union, \$13; Med. Service, \$5; Library, \$5.

RESIDENCE, ETC. 5 Halls of residence (including 2 belonging to affiliated Colleges), with accommodation for 525. Fees for room and board for the session, \$259; board only, \$25 per month. Social life is under supervision of Provost, a Univ. officer. All undergraduates are members of Students' Union.

UNIVERSITY EXTENSION work includes lectures at local centres, publication of material for debating and public discussion, travelling and packet libraries, and lantern slide and cinema services. The Extension Dept. has its own Radio Broadcasting Station.

Publications. Calendar (April); Press Bulletin, weekly, by Dept. of Extension; The Trail, quarterly, by Alumni Assocn.; The Gateway, weekly, The Evergreen and Gold, annually, by students.

## THE YEAR 1930-31

Benefactions. Robert Tegler Trust, 10 scholarships (free tuition) for 3 yrs. and 2 research scholarships of \$600 each; Canadian National Committee for Mental Hygiene, annual gift of \$3500 for instruction and research in Mental Hygiene; numerous other gifts for various purposes from many societies and private individuals.

EXTENSION WORK. Lantern slides sent out, 1970 sets; films, 422 sets; lectures, 301; travelling libraries, 246; radio lectures, 401; University Week for Farm Young People.

VISITS OF TEACHERS FROM OTHER UNIVS. Prof. S. Basterfield of the Dept. of Chem., Univ. of Sask., Prof. Wm. Boyd of the Dept. of Path., Univ. of Man.

RETIREMENTS AND RESIGNATIONS. J. M. Cassells (Pol. Econ.), R. M. Wiles (English), Kathleen M. Chalklin (Botany), Rieta L. Brown (Hous. Econ.), J. W. Caspar (Classics).

HONORARY DEGREE. LL.D.-Hon. Frank Oliver.

Students. Full-time: total, 1724, including 78 graduates. Part-time: total, 66, including 15 graduates.

Degrees. B.A., 61; B.Sc. in Arts, 25; B.Com., 12; B.Sc. in Pharmacy, 1; B.Sc. in Household Econ., 17; B.Sc. in Chem. Engin., 2; B.Sc. in Civil Engin., 7; B.Sc. in Elect. Engin., 7; B.Sc. in Mining Engin., 10; B.Sc. in Engin. Phys., 1; B.Sc. in Agric., 21; LL.B., 8; M.D., 31; D.D.S., 7; M.A., 7; M.Sc., 12; B.D., 4.

# UNIVERSITY OF BISHOP'S COLLEGÉ, LENNOXVILLE, QUEBEC

CHANCELLOR-F. E. MEREDITH, K.C., D.C.L., LL.D.

VICE-CHANCELLOR—Rev. A. H. McGreer, O.B.E., M.C., M.A. Ox., D.D., Principal of the College and Dean of Arts.

REGISTRAR—S. SANDERS, Bursar and Secy. of the College.

FACULTY OF ARTS-DEAN, THE PRINCIPAL.

FACULTY OF DIVINITY—DEAN, Rev. P. CARRINGTON, M.A. Camb.

#### PROFESSORS AND LECTURERS

FROTESSORS MID ELECT CREEKS		
Classics Preston, A. W., M.A. Edin., B.A. Ox. Lectr.	History Boothroyd, E. E., M.A. Camb., D.C.L. Prof.	
Divinity Carrington, Rev. P., M.A. Camb. and N.Z. Harold Prof.	Mathematics Richardson, A. V., M.A. Camb., D.C.L. Prof.	
Education Rothney, W. O., M.A. Chic., B.D., Ph.D. Hartf. Prof.  English Raymond, W. O., M.A., Ph.D.	Modern Languages Call, F. O., M.A., D.C.L. Prof. Natural Science [Prof. Kuehner, A. L., M.A. Queen's Home, M., M.Sc. McGill Asst. Prof. Pastoral Theology	
Mich. Prof. Lloyd, C. C., B.A. Ox. Lectr.  Hebrew and O. Test. [Lectr. Sauerbrei, C., B.A. Tor., L.S.T.	Vial, F. G., M.A., B.D., D.C.L. Mountain Prof. Philosophy and Economics Burt, Rev. H. C., M.A. Tor. Prof.	

## GENERAL INFORMATION

The College, founded in 1843, was in 1853 by Royal Charter constituted a University with power to confer degrees. It is administered by a Corporation consisting of the Anglican Bishops of the Province and Trustees and Council appointed by them jointly. The Bishops of Montreal and Quebec are President and Vice-President respectively of the Corporation and Visitors of the College.

The College provides ordinary and Honours courses for the B.A. degree, covering 3 yrs., and a 3 yrs.' course for the L.S.T. Divinity is a compulsory subject in each of the years of the ordinary course. Terms kept in other Univs. may be counted up to 2 yrs. Clergymen of the Dioceses of Canada may proceed to the B.A. by examns. without residence if of 6 yrs.' standing, and on a reduced period (r or 2 yrs.) if of 4 or 2 yrs.' standing.

Examns. are conducted for degrees in Music.

FEES. For tuition, \$125 p.a. for an Arts student; \$75 p.a. for a Divinity student; board and furnished lodging with heating and lighting, \$325 p.a. Publication: Calendar (Oct.).

## THE YEAR 1930-31

New Developments. Summer School for Teachers established in 1931.

Honorary Degrees. D.C.L.—The Rt. Rev. S. B. Booth, Bishop of Vermont, U.S.A.; The Hon. Chief Justice R. A. E. Greenshields, LL.D.; Sir Arthur Currie, G.C.M.G.; Sir George Garneau, LL.D.

STUDENTS. Full-time: total, 157, including 18 graduates.

DEGREES OBTAINED. B.A., 30: M.A., 7; L.S.T., 10.

# THE UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER

Telegraphic Address-Ubrico.

VISITOR-THE LIEUT.-GOVERNOR OF THE PROVINCE.

CHANCELLOR—R. E. MCKECHNIE, M.D., C.M., LL.D., F.A.C.S.

PRESIDENT—LEONARD S. KLINCK, B.S.A. Tor., M.S.A., D.Sc. Iowa, LL.D. West Ont., O.I.P.

REGISTRAR-S. W. MATHEWS, M.A. Qu.

LIBRARIAN-J. RIDINGTON.

### PROFESSORS, LECTURERS, ETC.

Agriculture, v. infra

Bacteriology

Hill, H. W., M.B., M.D., D.P.H.
Tor., LL.D. West Ont.,
L.M.C.C. Prof.

Mathews, Miss H. M., M.A. Instr. Duff, D. C. B., M.A., Ph.D. Tor. Instr.

ı Asst.

Botany

Hutchinson, A. H., M.A. McM., Ph.D. Chic. Prof. Dickson, Frank, B.A. Qu., Ph.D.

Corn. Assoc. Prof. Davidson, J., F.L.S., F.R.S.E.

Assoc. Prof.

3 Assts.

Chemistry

Clark, R. H., M.A. Tor., Ph.D. Leip., F.R.S.C. Prof. Archibald, E. H., B.Sc. Dal., A.M., Ph.D. Harv., F.R.S.E. and C.

Prof. (Anal. C.). Seyer, W. F., B.A., M.Sc. Alb., Ph.D. McG. Assoc. Prof.

Marshall, M. J., M.Sc. McG., Ph.D. Mass. Inst. Tech. Assoc. Prof.

Harris, J. Allen, Ph.D. Ill., M.A. Asst. Prof.

Ure, W., Ph.D. Cal. Inst. Tech., M.A.Sc. Asst. Prof. Allardyce, J., M.A. 6 Assts.

Instr.

Classics [Prof. Robertson, L. F., M.A. McG.

Todd, O. J., Ph.D. Harv.

Prof. of Greek.

Logan, H. T., M.C., B.A. McG., M.A. Ox. Assoc. Prof.

Owen, E., M.A. Ox. Asst. Prof. Auld, Jean M., B.A. Color., M.A. McG. Instr.

Dairying, v. Agric.

Economics, Sociology, & Polit. Sc. Angus, H. F., B.A McG., B.C.L., M.A. Ox. Prof.

Carrothers, W. A., B.A. Manit., Ph.D. Edin. Prof.

Day, J. F., B.A. Tor., M.A. Chic. Assoc. Prof. (Ec. & Com.).

Topping, C. W., B.A. Qu., A.M., Ph.D. Col.

Assoc. Prof. (Ec. & Soc.).
Drummond, G. F., M.A. St. A.,
M.Sc. Lond. Asst. Prof.

3 Lectrs., 2 Assts.

Education, v. also Philosophy Weir, G. M., B.A. McG., M.A. Sask., D.Pæd. Queen's Prof.

Assoc. Profs. :

Black, W. G., M.A. Chic., B.A.

Pilcher, Mrs. J. W., B.A., M.Sc. N.Z., A.M., Ph.D. Stamford 5 Part-time Lectrs.

Engineering, Civil, & Surveying

Engineering, Civil, & Surveying ..... Prof. Matheson, E. G., B.A.Sc. McG.,

Matheson, E. G., B.A.Sc. McG., M.E.I.C., M.Am.S.C.E. Assoc. Prof.

Wilkin, F. A., B.A.Sc. McG.

Asst. Prof. Finlay, A. H., M.S. in C.E. Ill., B.A.Sc. Asst. Prof. Lighthall, A., B.Sc. McG. Asst. Prof. Stuart, A. G., B.Sc. McG. Instr. Brock, B. B., B.A.Sc. Instr. Pretious, E. S., B.A. Sc. Instr.

Engineering, Mech. & Elec.

Vickers, H., M.E. Liv., M.Sc., Ph.D. Birm. Prof. Vernon F. W. B.Sc. (Eng.) Lond.

Vernon, F. W., B.Sc. (Eng.) Lond., Wh. Sch.

(Mech. Eng.) Assoc. Prof. Letson, H. F. G., M.C., Ph.D. (Eng.) Lond., B.Sc. Asst. Prof. Cullwick, E. G., M.A. Camb.

(Elect. Eng.) Asst. Prof.

Smith, G. S., M.A.Sc. McG. (Mech. Eng.) Asst. Prof.

Coulthard, W. B., B.Sc. Lond.

(Elect. Eng.) Asst. Prof. Bell, J. F., Eng. Capt. R.N., O.B.E., M.E.I.C. Instr. Archibald, H. P., B.A.Sc. McG.

Instr.

English

Sedgewick, G. G., B.A. Dal., Ph.D. Harv. Prof.

MacDonald, W. L., B.A. Tor., M.A. Wisc., Ph.D. Harv. Assoc. Prof. Wood, F. G. C., B.A. McG., A.M.

Harv. Assoc. Prof. Larsen, Thorleif, M.A. Tor., B.A.

Ox. Assoc. Prof. Walker, F. C., B.A. N. Brun., A.M.,

Ph.D. Harv. Assoc. Prof. Wilcox, F. H., A.B.. Ph.D. Calit. Assoc. Prof.

Bollert, Miss M. L., M.A. Tor., A.M. Col. (Dean of Women) Asst. Prof.

Lewis, H. C., M.A. Asst. Prof. 4 Assts.

Forestry

Christie, H. R., B.Sc.F. Tor. Prof. Knapp, F. M., B.S.F. Syracuse, M.S.F. Wash. Asst. Prof.

Brown, R. M., B.Sc.F. Tor. (Forest Prod.) Hon. Lectr.

French, v. Mod. Langs.

1700000, V. MOG. Edilgo.

Geology and Geography

Brock, R. W., M.A., LL.D. Qu., F.G.S., F.R.S.C. (Dean of Fac.) Prof.

Schofield, S. J., M.A., B.Sc. Qu., Ph.D. Mass. I. Tech., F.G.S.A., F.R.S.C.

(Phys. and Struct. Geol.) Prof. Williams, M. Y., B.Sc. Qu., Ph.D. Yale, F.G.S.A., F.R.S.C.

(Palæont. and Stratigraphy) Prof.

Phemister, T. C., Sc.M. Chic., Ph.D., D.Sc. Glas. (Miner. and Petrography)

Assoc. Prof.

Asst. Prof.

I Asst.

History

Prof. Sage, W. N., B.A. Tor., M.A. Ox., Ph.D. Tor. Prof. Soward, F. H., B.A. Tor., B.Litt. Ox. Assoc. Prof. Cooke, A. C., B.A. Man., M.A. Ox.

I Asst.

Horticulture, v. Agr.

Mathematics

Buchanan, D., M.A., LL.D. McM., Ph.D. Chic., F.R.S.C. (Dean of Fac.) Prof.

Nowlan, F. S., B.A. Acad., A.M. Harv., Ph.D. Chic. Prof. Robinson, G. E., B.A. Dal. Prof. Jordan, E. E., M.A. Dal.

Assoc. Prof.

Richardson, L., B.Sc.Lond. Physics Hebb, T. C., M.A., B.Sc. Dal., Assoc. Prof. Prof. Brand, F. J., B.Sc. Ox., B.A. Ph.D. Chic. Hennings, A. E., M.A. Lake Instr. Forest Coll., Ill., Ph.D. Chic. 7 Assts. Mining and Metallurgy [Prof. Davidson, J. G., B.A. Tor., Ph.D. Turnbull, J. M., B.A.Sc. McG. Calif. Assoc. Prof. Thomson, H. N., B.Sc. McG. Shrum, G. M., M.A., Ph.D. Tor. (Metall.) Prof. Assoc. Prof. Gillies, G. A., M.Sc. McG. Grayson-Smith, H., M.A., Ph.D. (Mining) Assoc. Prof. Tor. Asst. Prof. I Asst. 3 Assts. Modern Languages Zoology Ashton, H., M.A., Litt.D. Camb., Fraser, C. McL., M.A. Tor., Ph.D. D. ès L. Paris, D.Litt. Birm., Iowa, F.R.S.C. Prof. F.R.S.C., Chev. Lég. d'H., Spencer, G. J., B.S.A. Tor., M.S. O.I.P. (French) Prof. Illinois Asst. Prof. Evans, David O., M.A., Ph.D. Ox., Smith, Gertrude M., M.A. D. ès L. Paris Asst. Prof. Clark, A. F. B., B.A. Tor., Ph.D. I Asst. (French) Prof. Agriculture MacInnes, Isabel, M.A. Qu., Ph.D. Agronomy Calif. (German) Assoc. Prof. Moe, G. G., B.S.A., M.Sc. McG., Greig, Janet, B.A. Qu., M.A. Ph.D. Cornell Prof. (French) Asst. Prof. Boving, P. A., Cand. Phil. and Instructors: Agr. (Sweden) Prof. Hallamore, Joyce, M.A. Laird, D. G., B.S.A. Tor., M.S. Delavault, E. E., L. en D. Paris. Wisc. Assoc. Prof. Barry, Mme. G. I Asst. Tipping, Wessie, M.A. Darlington, Mme. Animal Husbandry Dallas, Dorothy, M.A. King, H. M., B.S.A. Tor., M.S. 3 Assts. Oregon Ag. Coll. Prof. Davis, R. L., B.S. Mont., Nursing and Health [Prof. M.S. Iowa S.C. Assoc. Prof. Hill, H. W. (v. Bacteriology) Hare, H. R., B.S.A. Tor., M.A. Gray, Miss M. F., R.N., Cert. P.H.N. Wisc. Assoc. Prof. Simmons Coll. Asst. Prof. Jervis, J. G., V.S. Ont. Vet. Col., Kerr, Margaret E., M.A. Col., B.V.Sc. Tor. B.A.Sc. Instr. (Vet. Sc.) Sp. Lectr. 14 Part-time Instrs. Dairying Sadler, W., B.S.A., M.Sc. McG., Philosophy | N.D.D. Reading Coleman, H. T. J., B.A. Tor., Ph.D. Col. (also Spl. Lectr. Golding, N. S., N.D.A., N.D.D., in Educn.) Prof. B.S.A. Tor., M.Sc., Ph.D. Henderson, J., M.A. Glas. Prof. Iowa Assoc. Prof. Pilcher, Mrs. J. W., B.A., M.Sc. Eagles, B., Ph.D. Tor., B.A. N.Z., A.M., Ph.D. Stanford Assoc. Prof. (Psychol. and Edn.) Assoc. Prof. I Asst.

Horticulture

Clement, F. M., B.S.A. Tor., M.A. Wisc. (Dean of Fac.) Prof.

Barss, A. F., A.B. Roch., B.S.Agr. Corn., M.S. Oreg. Ag. Coll., Ph.D. Chic.

Buck, F. E., B.S.A. McG.

Assoc. Prof.

Harris, G. H., B.S.A., M.S. Oreg. S.C., Ph.D. Calif. Asst. Prof. Poultry Husbandry

Lloyd, E. A., B.S.A. Sask., M.S.A. Wash. S.C. Prof.

Asmundson, V. S., B.S.A. Sask., M.S.A. Corn., Ph.D. Wisc.

Assoc. Prof.

## AFFILIATED COLLEGES

VICTORIA COLLEGE, Victoria. Affiliated, 1920, for 1st and 2nd years in Arts. Principal—P. H. Elliott, M.Sc. McG., Assoc. Prof. of Science, 1 other Prof., 5 Asst. Profs., 2 Instrs.

I Asst.

Union College of British Columbia, Vancouver (United Church of Canada)—Principal, Rev. J. G. Brown, M.A., D.D.; and The Anglican Theological College of British Columbia, Vancouver—Principal Rev. W. H. Vance, M.A., D.D. Both Colls. were affiliated in 1922.

## GENERAL INFORMATION

The University of British Columbia was incorporated by an Act of 1908. For early history, see *Yearbook* for 1929. The University site consists of 548 acres on the headland of Point Grey, 300 feet above the sea. Here a group of buildings constructed at a cost of nearly \$2,000,000 was opened in Oct. 1925.

The Board of Governors consists of the Chancellor, elected by Convocation, President, and 9 nominees of the Lieut. Govr. in Council. The Senate consists of the Minister of Educn., Chancellor, President (as Chairman), Deans, and 2 Profs. of each Faculty, 3 nominees of the Lieut. Govr. in Council, Supt. of Educn., principals of normal schools, one member elected by high school principals and assts., one by Provl. Teachers' Inst., one by each affiliated Coll.

or School in the Province, 15 by Convocation.

The Univ. is an integral part of the public educational system of the Province, and its function is to complete the work begun in the public and high schools. It is the policy of the Univ. to promote education in general and, in particular, to serve its constituency through three channels—teaching, research, and extension work. It furnishes instruction in the various branches of a liberal education, and in those technical departments which are most directly related to the life and industries of the Province. The people of the Province are informed of the results of special work by the staff of the Univ. through extension lectures. Lecturers are sent to various parts of the Province during the examination weeks in Dec. and April. In places which can be visited without prejudice to the duties of the lecturer at the Univ., lectures are arranged to take place during term.

The Library has 80,000 vols. and over 10,000 pamphlets, and regularly receives 550 periodicals. Laboratories available for all courses. A Forest Products Lab. was established in 1918 by the Forestry branch of the Dept. of the Interior as a permanent branch of the F.P. Labs. of Canada, v. App. XXIV. B. I. Herbarium, 16,000 sheets native flora, 200 water colours B.C. Fungi. BOTANICAL GARDENS, Arboretum and economic section, 5 acres.

FACULTIES. Arts and Science, Applied Science (Civil, Elec., Mech., Forest,

Geological, Metallurgical, Mining, and Chemical Engineering, Chemistry, Nursing and Health), Agriculture (including Dairying and Horticulture).

Pension Scheme. In 1924 a contributory plan of retiring allowances for members of the teaching staff was adopted, contracts being placed with the Teachers' Insurance and Annuity Assocn. of America. The same year the Univ. was associated with the Carnegie Foundation for the Advancement of Teaching, v. p. 371.

Matriculation examns., Junior and Senior, are arranged by the High School and Univ. Matricn. Board of the Province, consisting of members appointed by the Dept. of Education and by the Univ. Every student is submitted to a physical examn. on entrance to the University.

Degree Courses. B.A., 4 yrs. (3 from Senior Matricn.). B.Com., 4 yrs. B.A.Sc. in Applied Science, 5 yrs. (4 from 1st yr. in Arts or Senr. matricn.). B.S.A., 4 yrs. from Junr. matricn. Double course, B.A. and B.A.Sc., 6 yrs. Courses for the M.A., M.A.Sc., and M.S.A. Short courses in Agric. at the Univ. and elsewhere. 1 yr. course in Public Health for graduate nurses. Occupational course of 1 yr. in Agriculture; Social Service, 2 yrs., leading to diploma. Evening Courses, with summer excursions, in Botany.

SUMMER SESSION. In 1922 the summer school for teachers became the summer session. Teachers and others with full Matricn, standing may pursue Univ. courses and receive credit therefor towards the B.A. degree.

FEES, inclusive, \$125-\$175 per session. Graduation, \$25.

SCHOLARSHIPS FOR GRADUATES. \$200 awardable to graduate for further studies; three of \$100, one being for Applied Science and one for Canadian History; \$1200 p.a. for 3 yrs. for study in France; one of 10,000 francs for study in France.

RESIDENCE. Board and lodging in vicinity of the College from \$40 to \$50 p.m.

UNIVERSITY EXTENSION. Numerous lectures have been given under Univ. auspices in different centres in the province, but adult education has not yet been given the status of a Department. The selection of speakers and of subjects is made by a Standing Committee on Univ. Extension, which provides series of connected lectures throughout the winter. Short courses of 4 days' duration have been conducted for a number of years with marked success. Present indications are that 3-yr. tutorial classes will not be organized in the Univ. for some time. The Vancouver Institute co-ordinates efforts of various organizations in the field of adult education.

Publications. Requirements for Matriculation; Calendar (April); Announcements of Short Courses in Agric.

## THE YEAR 1930-31

RETIREMENTS. Wm. E. Duckering, Prof. and Hd. of Dept. of Civil Engin.; D. C. Harvey, Hd. of Dept. of Hist., appointed Archivist of Nova Scotia and Special Lectr. at Dalhousie Univ.

STUDENTS. Full-time: total, 2044, including 178 graduates. Part-time: total, 706, including 28 graduates. Short Courses: Summer Session, 1930, 455. Agric., 216; Occup. Course (Agr.), 10; Public Health Nursing, 12; Botany, 48; Late Afternoon and Saturday Morning Classes, 105; Social Service, 10.

DEGREES. M.A., 22; B.A., 235; B.Com., 14; M.A.Sc., 2; B.A.Sc., 49; M.S.A., 3; B.S.A., 14.

## DALHOUSIE UNIVERSITY, HALIFAX, NOVA SCOTIA

CHAIRMAN OF THE BOARD OF GOVERNORS-G. FRED PEARSON, LL.B. PRESIDENT OF THE UNIVERSITY—CARLETON W. STANLEY, B.A. Tor., M.A. Ox.

Classics

REGISTRAR-Prof. M. MACNEILL, M.A.

Anatomy

## PROFESSORS, LECTURERS, ETC.

Anatomy	04433463
Mainland, D., M.B., Ch.B. Edin.	Nichols, E. W., M.A., Ph.D. Yale
Campbell Prof.	McLeod Prof.
Ross, R. F., B.A., M.D., C.M.	Griffin, A. K., M.A. Tor. and Ox.,
Asst.	Ph.D. Tor. (on leave)
Mader, V. O., M.D., C.M. McG.	Assoc. Prof. (K.).
Demr.	Kent, J. H., B.A. Queen's Lectr.
Holland, C. W., B.A., M.D., C.M.	Yeo, C. A., B.A. Lectr. (K.).
Demr.	Logan, J. W., M.A. Lectr.
Sangster, A. H., M.D., C.M.	
	Commerce
Demr.	MacDonald, J. M., B.A. St. F. X.,
Biblical Literature	M.B.A. Harv. Prof.
Watson, W. G., B.A. Tor., D.D.	
Vic. Lectr.	Ells, R. W., A.B., M.B.A. Harv.
	Lectr.
Biology	Dentistry, v. infra
Bell, H. P., Ph.D. Tor., M.Sc.	
Prof.	Economics and Sociology
Hayes, F. R., B.Sc., M.Sc., Ph.D.	Maxwell, W. R., B.A., M.A. Harv.
Liv. Lectr.	Asst. Prof. (K.).
Pelluet, Dixie, Ph.D. Bryn Mawr	Prince, S. H., M.A. Tor., Ph.D.
	Col. Asst. Prof. (K.).
Lectr.	Coi. Asst. 1101. (12.).
MacFarlane, Constance I., B.A.	Education
Asst.	Smith, C. W., B.A. Mo., LL.B.
Allen, G. R. K., B.Sc. Stud. Asst.	
Langstroth, Muriel A., B.A.	Col., Ed. M., Ed.D. Harv.
Stud. Asst.	Prof.
	Engineering, Civil
Chemistry	Copp, W. P., B.A. Ac., B.Sc. McG.,
Nickerson, C. B., A.M. Clark Prof.	M.E.I.C. Prof.
King, H. S., A.B., Ph.D. Harv.	The second secon
Asst. Prof.	Theakston, H. R., B.Sc. (Mining),
Coffin, C. C., B.A., M.Sc., Ph.D.	Nova Scotia Tech. Coll. Prof.
McG. Lectr.	English I am and I it
	English Lang. and Lit.
Todd, E. W., B.A. Instr.	Bennet, C. L., M.A. Camb., A.M.
Fraser, H. R., B.A. Demr.	Harv. Munro Prof.

Munro Prof.

Martin, J. B., M.A. Tor., Ph.D. [Munro Prof. PhilosophvStewart, H. L., M.A. N.U.I. and Harv. Asst. Prof. (K.) Ox., Ph.D. N.U.I., F.R.S.C. Jewitt, A. R., B.A. Lectr. Physics Fine Arts Bronson, H. L., B.A., Ph.D. Yale, Falconer, J. W., M.A. Edin., D.D. Munro Prof. Knox Lectr. F.R.S.C. Johnstone, J. H. L., Ph.D. Yale, Fisheries M.Sc. Leim, A. H., B.A., Ph.D. Tor. Weir, H. A., B.A. (Zool.) Asst. Prof. MacGregor Fellow. Beatty, S. A., M.A. Qu.'s, Ph.D. Dockerty, S. M., B.A. Stud. Asst. McG. Turnbull, L. G. Stud. Asst. ((Bio-Chem.) Assoc. Prof. Hess, E., M.A. Queen's Physiology and Histology (Bacteriol.) Asst. Prof. Cruickshank, E. W. H., M.D. Aber., D.Sc. Lond., Ph.D. [Asst. Prof. Geology Camb., M.R.C.P. Lond. Prof. McIntosh, D S., M.Sc. McG., B.A. Startup, C. W., B.Sc. Aber. [Prof. Asst. Prof. History Bean, R J., M.S. N.H. Wilson, G. E, M.A.Qu, Ph.D. Harv. Walker, A. S., M.A. Leeds and (Hist. & Embry.) Prof. Birm., B.Litt. Ox. Prof. (K.). Bean, Elizabeth S., B.A. Cınn., Harvey, D. C. (Can. Hist.) Lectr. M.A. Wis., Ph.D. Wis. (Hist. & Embry.) Instr. Law, v. infra Gray, J. C. Mathematics (Hist. & Embry.) Stud. Asst. Macneill, M., M.A. Harv. Prof. Political Science Adshead, J. G., B.A. Camb. MacKay, R. A., M.A. Tor., Ph.D. Asst. Prof. (K.). Dennis Prof. Princ. Walmsley, C., M.A. Camb. Asst. Prof. Psychology Mathematical Physics Page, F. H., M.A. Tor. Henderson, G. H., Ph.D. Camb., Asst. Prof. (K.). M.A., F.R.S.C. Prof. (K.). Medicine and Surgery, v. infra Law Modern Languages Bankruptcy, Torts, Sales, Agency and Partnership Gautheron, René, Ag. des L. Paris McLeod Prof. MacDonald, Y. C., B.A., LL.B. Prof. Martin, E., Ag. d'anglais Paris Bills and Notes, Property, Cor-Interim Prof. Mercer, C. H., M.A., B.Com. porations Assoc. Prof. MacQuarrie, J. T., B.Com., LL.B. Manc. Dufau, L. L., Lic. ès. L. Asst. Prof. (K.). Constitutional Law, Mortgages, Equity, Contracts MusicSmith, S. E., M.A. King's, LL.B. Dean, H. Lectr.

Examiner.

McKinley, C.

[Lectr.

Cunningham, A. R., B.A., M.D.,

Asst. Prof.

Criminal Law

Doty, I. C., B.A. Acad., LL.B.

Kirkpatrick, H. W., M.D., C.M. Equity, Property, International Demr. Law, Conflicts Gynæcology, v. Obst. Read, H. E., B.A. Acad., LL.M. Harv., LL.B. Prof. Hygiene and Public Health Hattie, W. H., M.D., C.M. McG., EvidenceF.R.C.P. Can. Prof. Carroll, Hon. W. F., B.A. St. Forrest, W. D., B.Sc., M.D., C.M. F. X., LL.B. Lectr. Lectr. Hist. Engl. Law [Lectr. Slattery, Anne, B.A. McG. Asst. Godfrey, J. W., B.C.L. Ox., B.A. Trefry, Marjorie E. Asst. Insurance Materia Medica Thompson, W. E., LL.B. Lectr. Burbridge, G. A. Lectr. Jones, F. H. M., B.A., LL.B. Lectr. Medical Jurispr. Practical Statutes Woodbury, Prof. F. V. (v. Dent-Walker, J. A., B.A. C.U.A., LL.B. istry) Demr. Lectr. Procedure Medicine and Clin. Med., v. also Rutledge, J. E., B.A., LL.B. Lectr. Ped. and Skin Silver, L. M., B.A. Vind., M.B., Shipping [Lectr. C.M. Edin. Emer. Prof. Burchell, C. J., M.A., LL.B., K.C. MacKenzie, K. A., M.D., C.M., Smith, F. D., K.C. Lectr. F.R.C.P. Can. Corston, J. R., B.A., M.D., C.M., Medicine F.R.C.P. Can. Asst. Prof. (for subjects of the first 2 yrs.— Lecturers: Sieniewicz, T. M., M.D., C.M. Anat., etc., v. supra) Johnston, S. R., M.D., C.M. Anæsthetics Churchill, J. L., B.A. Acad., M.D., Lessel, J. F., M.D., C.M. Demr. C.M. McG. Muir, W. L., M.D., C.M. McG. Burns, G. R., M.D., C.M. Demr. Demonstrators: Bacteriology, v. Pathology MacKeen, R. A. H., M.D., C.M. Bio-Chemistry McG. Merritt, J. W., M.D., C.M. Young, E. G., B.A., M.Sc. McG., Rankine, J., B.A., M.D., C.M. Ph.D. Camb. Prof. Marshall, A. M., M.D., C.M. Murray, A. E., B.A., M.D., C.M. Asst. MacLean, J. R., M.D., C.M. MacIntosh, F. C., B.A. MacIntosh, J. W., M.D., C.M. Stud. Asst. Reid, J. W., Jr., M.D., C.M., M.R.C.P. Lond. Ear, Nose, and Throat Doull, A. E., M.D., C.M. McG. Mentul Diseases Asst. Prof. Hattie, W. H., M.D., C.M. McG., Doull, A. E., Jr., M.D., C.M. Demr. F.R.C.P. Can. Schwartz, H. W., M.D., C.M. ,, Lawlor, F. E., M.D., C.M. McG. Eye, Diseases of the, etc. Demr. Mathers, R. E., M.D. N.Y. Prof. Morton, A. R., M.D., C.M. Demr.

Obst. and Dis. of Women and Murphy, G. H., M.D., C.M., Children F.R.C.S. Can. Prof. McDonald, H. K., M.D., C.M. Almon, W. B., M.D., C.M., F.R.C.S. McG., F.R.C.S. Can. Prof. Can. (Obst.) Assoc. Prof. Atlee, H. B., M.D., C.M., F.R.C.S. Stewart, J., C.B.E., M.B., C.M. Edin. Edin., LL.D. Edin., Dal., and Prof. and Demr. in Pract. McG., F.R.C.S. Edin.\* Weatherbe, P., M.B., Ch.B. Edin. Obstet. Demr. Macdonald, P. A., M.D., C.M. (Op. Surg.) McG. (Practical O.) McDougall, J. G., M.D., C.M. McG., F.R.C.S. Can. Demr. and Chief of Clinic. Curry, W. A., M.D., C.M., F.R.C.S. Maclellan, E. K., M.D., C.M., F.R.C.S. Can. Eng. Asst. Prof. Prof. and Demr. in Pract. Demonstrators: Obstet. Burris, M. G., B.A., M.D., C.M. Colwell, W. G., M.D., C.M. Gosse, N. H., M.D., C.M. (Pr. Gynæc.) Demr. Kinley, C. E., M.D., C.M. Pathology and Bacteriology O'Brien, H. D., B.A., M.D., C.M. Smith, R. P., M.B., Ch.B. Glas., MacDonald, D. J., M.D., C.M. McG. D.P.H. Glas. and Edin. Prof. Acker, T. B., M.D., C.M. Acker, J. C., M.D., C.M. McG. MacKeen, R. A. H., M.D., C.M. Mader, V. O., M.D., C.M. McG. Asst. Prof. McG. Gosse, N. H., M.D., C.M. (Path.) Demr. Dentistry Pediatrics and Medicine Prof. Bagnall, J. S., D.D.S. Carney, M. J., M.D., C.M. McG., D. Anatomy B.A. Asst. Prof. Ritchie, S. G., B.A. N. Brun., Campbell, J. G. D., M.D., C.M. D.M.D., T.D.C. (Ped.) Demr. Crown and Bridge Work, etc. Wiswell, G. B., M.D., C.M. Oxner, W. C., D.D.S., B.C.D.S. (Ped.) Demr. Prof. Pharmacology Faulkner, A. W., D.D.S. Lectr. Dreyer, N. B., B.A. Cape, M.A. Dawson, W. G., D.D.S. Demr. Ox., M.R.C.S. Eng., L.R.C.P. Drawing, Modelling, and Metal-Prof. Lond. craft Demr. Radiology Brodie, Margaret Lectr. Johnston, S. R., M.D., C.M. Exodontia and Radiology [Lectr. Skin Diseases and Medicine Hennigar, G. R., D.D.S., B.C.D.S. Mack, F. G., M.B. Tor., B.A., F.R.C.S. Can. (Demr. in Uroand Oral Surg. Genl.Asst. Prof. logy) Anæsth. Woodbury, F. V., M.D., C.M., Surgery and Clin. Surg. L.R.C.S. and L.R.C.P. Edin., Hogan, E. V., C.B.E., B.A. St. L.F.P.S. Glas. F. X., M.D., C.M. McG., D. Jurisprudence, Ethics, and M.R.C.S. Eng., L.R.C.P. Economics Lond., F.R.C.S. Can. Crosby, H. S., D.D.S. Lectr. Prof. and Head of Dept.

Metallurgy

Hygiene, Preventive and Clinical Dentistry Thomson, G. K., D.D.S., P.D.C. Materia Medica

Woodbury, K. F., D.D S. Lectr.

Demr. Logan, G. M., D.D.S. Prof. Operative D. Beckwith, W. H. H., D.D.S. Penn. Chudleigh, G. A., D.D.S., B.C.D.S.

Orthodontia Woodbury, W. W., B.Sc., D.D.S.. Prof. P.D.C.

D. Pathology and Therap. Cogswell, A. W., D.D.S. Penn., M.D., C.M. Hfx. Prof.

Prosthetic D. Ritchie, S. G., B.A., N.B., D.M.D., T.D.C. Prof. Bagnall, J. S., D.D.S. Prof. Climo, C. B., D.D.S. Lectr. Tech.

## Lectr. ASSOCIATED AND AFFILIATED INSTITUTIONS

University of King's College, v. infra.

PINE HILL DIVINITY HALL, Halifax. Classes and examns. in Hebrew and in New Testament Greek at Pine Hill are recognized as qualifying for the B.A. Students may complete the Div. course at the Coll. and take the B.A. in 6 yrs. Confers the degree B.D. Principal, Rev. Clarence MacKinnon, M.A., D.D., LL.D. 3 other Profs.

Gardner, O.

PRINCE OF WALES COLLEGE, Charlottetown, P.E.I. Students holding certain certifs. of the Coll. enter the 1st, 2nd, or 3rd yr. of the B.A. course. Principal, S. N. Robertson, M.A., LL.D.

HALIFAY CONSERVATORY OF MUSIC. Courses recognized for Mus.B. and Lic.Mus. Director, H. Dean.

HALIFAX LADIES' COLLEGE. The teaching in Household Science is recognized as part of the qualification for the Univ. diploma in that department. Principal, Miss F. E. Blackwood, B.A.

MARITIME COLLEGE OF PHARMACY. Courses recognized for B.Sc. Dean, G. A. Burbidge.

BIOLOGICAL BOARD OF CANADA. Classes in Fisheries. School recognized for B.Sc.

CONVENT OF THE SACRED HEART (Mother Superior, Mother Coughlin) AND MOUNT ST. VINCENT COLLEGE (Mother Superior, Mother Mary Louise). Recognized for Advanced Standing in 1st and 2nd years in Arts.

#### GENERAL INFORMATION

Dalhousie College, founded in 1818 by the Earl of Dalhousie, was in 1841 granted Univ. powers. For early history, see Yearbook for 1929.

Appointments to the Board of Governors are made by the Govr.-in-Council on the nomination of the Board or on the nomination, with the approval of the Board, of individuals or bodies supporting chairs.

LIBRARIES. 64,000 vols. and 12,000 pamphlets. Access also to Science Library—78,400 vols. and pamphlets; Legislative—30,000 vols.; Theol.— 23,500 vols. and pamphlets; Law-18,000; Citizens' Free Library-36,900 vols. and pamphlets. Museums: Ornith., Geol., Indian antiquities. Access to Provincial Museum of Geol., Mineral., Zool. Public Archives of Nova

Scotia. Laboratories: Chem., Physical, Geol., Engin., Biol., Bio Chem., Physiol., Histol., Pharm., Psychol.

FACULTIES. Arts and Science (including Commerce, Music, Pharmacy, Fisheries, and Engineering); Law; Medicine; Dentistry.

Matriculation requirements are articulated to the High School system of the Province, which covers the last 4 years of the Public School 12-year course. The compulsory subjects for admission to the B.A. and LL.B. courses are (1) English, (2) Maths., (3) Latin or Greek, (4) another foreign language, (5) History (British or Ancient), Physics, or Chem.; B.Sc. and B.Com.—(1), (2), (5), two foreign languages; B.Mus.—(1), (2), (5), French, German; M.D., C.M. and D.D.S.—(1), (2), (4), Latin, Brit. Hist., Phys., Chem.

Degree Courses. 4 yrs.—B.A., B.Sc., B.Com.; 3 yrs.—LL.B., Mus.B.; 4 yrs.—D.D.S.; 5 yrs.—M.D., C.M. (taken together); 4 yrs. (following 4 yrs. practical experience)—B.Sc. (Phm.); the first 2 yrs. of the Engin. course (v. p. 371). The M.D., C.M., and D.D.S. can be reached by concurrent courses in 8 yrs. The M.A. or M.Sc. is given on successful completion of an approved I-yr. course of study by a B.A. or B.Sc., respectively, of an approved Univ.

DIPLOMA course for the Lic.Mus.—2 yrs. Music, Pharmacy, and Household Science courses are taken in the Affiliated Institutions, v. supra.

FEES. For tuition, for each class (ex. lab. or draughting-room), \$25; lab. or draughting-room class, \$35. Composition for tuition in Law, \$200 p.a.; Med., \$250 p.a.; Dent., \$225 p.a.

Scholarships for Graduates. \$250 in Polit. Sc. for study in another Univ.

Loan and Aid Funds for students have been instituted. \$500 Resident Fellowship for Women; \$1500 Travelling Fellowship for Women; \$800 Fellowship in Physics.

RESIDENCE. Hostel for 100 women students, erected at a cost of \$400,000.

Publications. Calendar (July); Annual Report (Sept.); Gazette, \$1; Dalhousie Review, quarterly. For description and photogravures of buildings, see Jour. Royal Arch. Inst. of Can., Jan.-Feb. 1926.

## THE YEAR 1930-31

GIFTS. \$26,175.

NEW BUILDING. The new Public Archives building, situated on the Dalhousie campus, the gift of W. H. Chase, was officially opened on Aug. 1, 1931.

Dearths. Howard Murray, McLeod Prof. of Classics, Hd. of the Depart. and Dean of the Univ.; Walter Douglas MacFarlane, Prof. of Engl. Lang. and Lit.

RETIREMENTS: Dr. A. Stanley Mackenzie, retired July 1931, after a Presidency of exactly twenty years, during which period the Univ. showed a remarkable expansion. He was succeeded by Carleton W. Stanley, M.A., who assumed duties Aug. 1, 1931. A. L. Macdonald, Assoc. Prof. of Law. Mary C. Stevenson, Technician and Demr. in Pathol. and Bacteriol.

HONORARY DEGREE. LL.D.—Arthur Stanley Mackenzie, B.A., Ph.D., D.C.L., LL.D., F.R.S.C.

STUDENTS. Full-time: Total, 885, including 13 graduates. Part-time: total 85, including o graduates.

DEGREES OBTAINED. B.A., 73; B.Sc., 39; M.A., 7; M.Sc., 3; B.Com., 11; LL.B., 16; M.D., C.M., 23; D.D.S., 9. Diplomas: L.Mus., 2; Engin., 8; Pharmacy, 4; Household Sci., 1.

# UNIVERSITY OF KING'S COLLEGE, HALIFAX, NOVA SCOTIA

(Associated with Dalhousie University.)

Postal Address—King's College, Halifax, N.S.

PATRON-THE ARCHBISHOP OF CANTERBURY.

VISITOR AND CHAIRMAN OF THE BOARD OF GOVERNORS—THE ARCH-BISHOP OF NOVA SCOTIA.

VICE-CHAIRMAN OF THE BOARD OF GOVERNORS—THE BISHOP OF FREDERICTON.

President—Rev. Arthur H. Moore, M.A., D.C.L. (Lennox), D.D.

REGISTRAR-T. H. HUNT, M.A., D.D.

BURSAR AND DEAN OF RESIDENCE—R. L. NIXON, M.Sc.

DEAN OF WOMEN-Mrs. W. F. McCurdy.

PROFESSORS AND LECTURERS: Divinity—Vroom, Ven. Archdeacon F. W., D.C.L. Bishop's Coll., M.A., D.D., Dean of Divinity and Librarian; Hunt, T. H., M.A., D.D., Alexandra Prof.; Hiltz, R. A., M.A., D.C.L., Lectr; the President; Rev. A. Stanley Walker, M.A. Sociology—Rev. S. H. Prince, Ph.D. Col.

For Classics, Economics, English, History, Maths., Math. Physics, Mod. Langs., and Psychol., see Dalhousie Univ. staff list.

#### GENERAL INFORMATION

Opened in 1789 at Windsor, N.S., the College was established with full University powers by Royal Charter in 1802. In Sept. 1923, the Univ. removed to Halifax and became associated with Dalhousie Univ. (see p. 369). staffs in Arts of the two Univs. are combined in one faculty. The first year courses are given independently to the students of Dalhousie and of King's; but with this exception students of both institutions follow on equal terms the same courses leading to the same degrees. King's holds in abeyance her degree conferring power in Arts and Science, but retains complete control of her Divinity School as well as of her present endowments, administration of residences, etc. Under the terms of the agreement between Dalhousie and King's, the Carnegie Corporation set aside \$600,000, which was handed over to King's on Dec. 31, 1928, a sum sufficient to establish the College in Halifax, i.e. \$400,000, having been raised, and the session of 1930-31 opened in new buildings, value \$450,000. The School of Law which was established in connexion with the College, in St. John, N.B., in 1892, was transferred to the Univ. of New Brunswick in Sept. 1923, when King's College removed to Halifax. The Univ. is governed by a Board consisting of the Bishops of the dioceses of Nova Scotia and Fredericton and the President of the Univ. ex officio, together with 10 members elected by the Alumni Assocn. and 8 elected by each of the diocesan Synods.

Students from the Jamaica Church Theological College who, after a residence of six terms there, pass the required examns. in the subjects of the Divinity course at King's, may receive the diploma of L.S.T.

Publication. Calendar (June).

## THE YEAR 1930-31

BENEFACTIONS. Residuary interest in an estate under which the College will receive about \$250,000.

DEVELOPMENTS. Library being recatalogued.

DEATH. Dr. W. D. MacFarlane (English), June 1931.

STUDENTS. Full-time: total, 110, including 7 graduates.

DEGREES. B.A., 5; B.Sc., 2.

## LAVAL UNIVERSITY, QUEBEC

VISITOR AND CHANCELLOR APOSTOLIC—THE ROMAN CATHOLIC ARCH-BISHOP OF QUEBEC.

RECTOR-Mgr. Ph. J. FILLION, M.A., Supt. Seminary of Quebec.

SECRETARY OF THE UNIVERSITY AND MODERATOR-Prof. ARTHUR MAHEUX, M. ès A., L. ès L. Paris, D.D.

#### TEACHING STAFF

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ÉCOLE SUPÉRIEURE DE CHIMIE. Affiliated to the Faculty of Arts. Director, A. Vachon. 18 other Profs.

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The Univ. was founded by the Seminary of Quebec in 1852 under a Royal Charter. A general supervision of teaching and discipline is exercised by the Archbishop of Quebec as Visitor and Chancellor Apostolic and President of the Conseil Supérieur of Archbishops and Bishops of the Province. The Profs. of the Faculty of Theology are nominated by the Visitor, those of other Faculties by the Conseil de l'Université, composed of the Directors of the Seminary of Quebec and 3 Senior Profs. of each Faculty.

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Degree was, and still is, reached in the Univ. of Paris. The Baccalauréat (B. ès A., etc.) is not the equivalent of any of the English Degrees, but is an official certificate (recognized by the Govt.) that the student has successfully completed his literary and scientific studies, and is entitled to begin his professional studies in law, medicine or applied science. It is obtained before he leaves the affiliated Institute, Seminary or College at which he has studied. Students who reach a certain standard in both Letters and Sciences obtain the B. ès A.; those who reach this standard in either and a certain lower standard in the other obtain the B. ès L. or B. ès Sc. The course for the Licence covers 2 yrs. in Philos. (L. en Ph.) or Letters (L. ès L.); 3 yrs. in

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The complete medical course formerly lasted only 4 yrs., but since Jan1909 has, in accordance with the regns. of the Provincial Coll. of Phys. and
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for the Dipl. of Hygiéniste expert may be taken by a D. en M. after a 6 mos.'
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### THE YEAR 1930-31

New Buildings. Extension for Medicine; house for Law, École normale supérieure.

Other Developments. Institut de Biologie at Trois-Pistoles-sur-mer (Qué.).

EXTRA-MURAL WORK. Lessons on French and French-Canadian Culture at Sellery (Qué.) for Ontario Teachers.

DEATHS. His Em. Cardinal R. M. Rouleau, Visitor and Chancellor; Prof. E. Turcot (Med.); Prof. J. B. Lacroix (Med.); Prof. P. Dupré (Med.); Prof. G. Gagnon (Music).

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—Hon. Judge E. Gelly, Lévis; Philippe Angers, Notary, Beauceville. D.Th.
—S. Exc. Mgr. Rodrigue Villeneuve, Bishop of Gravelbourg (Sask.).

STUDENTS. Full-time, 6604. Part-time, 341.

DEGREES. B. ès A., 149; B. ès Sc., 34; B. ès L., 13; M.B., 33; M.D., 36; LL.B., 1; Lic.Phil., 13; Lic.Dr., 24; Lic.Theol., 5; B.Th., 5; D.Th., 5; Diplomas in Chem., 5; Nursing, 82; Music (Certificates), 106; Agric., 18; Forestry, 8; L.Sc., 0; L.Litt., 0; L.Agr. (L.S.A.), 0; B.Mus., 1; Bach. Surv., 6.

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	Harv., Ph.D. Harv.
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•	Asst. Prof. Le Maitre, G. E. Henry, Mlle. C. Asst. Prof. Asst. Prof. Lectr.
7 Graduate Fellows.  Education Clarke, F., M.A.  Prof.	Asst. Prof. Le Maitre, G. E. Asst. Prof.

Mathematics [Dawson Prof. Geology MacLean, N. B., D.S.O., M.A., O'Neill, J. J., M.Sc., Ph.D. Prof. Clark, T. H., Ph.D. Prof. Ph.D. Asst. Prof. Sullivan, C. T., B.A. Dal., Ph.D. Gill, J. E., Ph.D. Osborne, F. F., Ph.D. Asst. Prof. Chic., D.Sc. Gillson, A. H. S., M.A. Camb. 4 Assts. Assoc. Prof. German Williams, W. L. G., Ph.D. Walter, H., M.A. Edin., Ph.D. Assoc. Prof. Mun. Prof. Jamieson, R. E., M.Sc. (M. and Graff, W. L., Ph.D. Assoc. Prof. Civ. Engin.) Asst. Prof. Meyer, Bertha, M.A. Lectr. Tate, H., B.Sc., M.A. Dub. Hebrew and Semitic Langs. Asst. Prof. Brockwell, C. A. B., M.A. Prof. Dodd, G. J., M.Sc. (M. and Civ. Lectr. Berger, J., M.A. Engin.) Asst. Prof. Howat, D., M.A. Asst. Prof. Hellenistic Jewish Lit. Pall, G., M.A. Tor., Ph.D. Chic. Abbott-Smith, G., M.A., D.D., Lectr. D.C.L. Prof. Medicine, v. infra Histology and Embryology [Prof. Mineralogy Simpson, J. C., B.Sc. Prof. Graham, R. P. D., B.A. Ox., M.Sc. Fisk, W. M., M.D. (Histol.) Lectr. Crowdy, C. T., M.D. Lectr. Mining, v. Engineering Bowie, D. J., B.Sc., Ph.D. Lectr. Music 2 Demrs. Clark, Douglas, M.A., Mus.B. Camb., F.R.C.O. History Dir. of Conservatorium. Waugh, W. T., M.A., B.D. 26 Assts. Fryer, C. E., M.A., Ph.D. Harv. Nursing Adair, E. R., B.A. Lond., M.A. Harmer, Bertha, M.A., R.N. Camb. Assoc. Prof. Directress of School. MacDermot, T. W. L., M.A. Ox. 18 Lectrs. and Instrs. (Part-time). Asst. Prof. Philosophy [Macdonald Prof. 3 Assts. Hendel, C. W., Ph.D. (Moral Ph.) Household Science Mackay, Ira A., M.A., Ph.D., Philp, Miss B., Hd. of School of LL.D. H.S. in Macdonald Coll. (Logic and Metaphysics) Prof. 9 Instrs. Porteous, A. J. D., M.A. Law, v. infra Physics [Macdonald Prof. Eve, A. S., D.Sc., F.R.S. Library School Barnes, H. T., D.Sc., F.R.S. Prof. Lomer, G. R., M.A., Ph.D. King, L. V., M.A. Camb., D.Sc., Director and Prof. F.R.S. Carter, Mary D., Ph.D., B.L.S. Shaw, A. N., B.A. Camb., D.Sc. Asst. Director and Prof. Prof. Herdman, Margaret M., A.B., Keys, D. A., M.A., Ph.D. Prof. B.L.S. Asst. Prof. Foster, J. S., Ph.D. Prof. 3 Assts. Gillson, A. H. S., M.A. Camb. Logic, v. Philos. Assoc. Prof.

Assoc. Prof.

Animal Husbandry

Barton, G. S. H., B.S.A., D.Sc.

Reilley, H. E., B.A., M.Sc.

Watson, W. H., M.A., Ph.D. Camb.

Dean and Prof.

Asst. Prof.

Asst. Prof.

Asst. Prof.

Asst. Prof.

Prof.

Lectr.

Lectr.

Asst. Prof.

Asst. Prof.

Asst. Prof.

Asst. Prof.

[Assoc. Prof.

Lectr.

Lectr.

Lectr.

Asst. Prof. Ness, A. R., B.S.A. Crampton, Earle W., M.S., B.S.A. Douglas, A. V., Ph.D. Lectr. Watson, H. G. I., B.A. Tor., M.Sc. 6 Demrs. Lectr. Hamilton, L. H., M.S. Physiology Animal Pathology [Asst. Prof. Tait, J., M.D., D.Sc. Drake Prof. Conklin, R. L., D.V.M., M.Sc. Babkin, B. P., M.D., D.Sc. Bacteriology [Asst. Prof. Research Prof. Gray, P. H. H., M.A. Ox. Giblin, N., M.B., Ch.B. Asst. Prof Chemistry Dworkin, S., M.D. Lectr. Snell, J. F., Ph.D. 2 Demrs. McCarthy, N. B., B.A., D.Sc. Psychology Tait, W. D., B.A. Dal., Ph.D. McKibbin, R. R., Ph.D. Prof. Harv. Kellogg, C. E., Ph.D. Assoc. Prof. Homemakers Clubs, etc. Bridges, J. W., Ph.D. Superintendent and 10 Assts. (Abnorm. Psychology) Prof. Horticulture 2 Assts. Bunting, T. G., B.S.A. Social Service Murray, H. R., M.Sc. Asst. Prof. Dawson, C. A., Ph.D. Director. Hilton, G. C., M.S. Hughes, Everett C., B.A., Ph.D. 1 Asst. Asst. Prof. Physics 10 Lectrs. (Part-time), 2 Assts. Rowles, W., M.Sc. Spanish, v. Commerce Froman, D. K., B.Sc., Ph.D. [Strathcona Prof. Zoology Willey, A., D.Sc., F.R.S. Plant Pathology Berrill, N. J., B.Sc., Ph.D. Lond. Brittain, W. H., M.S. in Agr., Asst. Prof. Ph.D. Wynne-Edwards, V. C. Asst. Prof. Duporte, E. M., Ph.D. Asst. Prof. Henderson, Jean, M.Sc. Lectr. Coulson, J. G., M.A. 2 Demrs. Suit, R. F. r Asst. Agriculture, School of, in Poultry Macdonald Coll. Maw, W. A., M.S.A. Agricultural Economics

Prof.

Prof.

Asst. Prof.

Asst. Prof.

Lectr.

Lattimer, J. E., Ph.D.

Summerby, R., M.S.A.

Raymond, L. C., B.S.A.

Bird, J. N., M.A., M.S.A.

Lods, E. A., M.Sc.

r Asst.

Agronomy

Agricultural Engineering

Heimpel, L. G., B.S.A. Asst. Prof.

## Engineering

Hodgins, S. R. N., B.S.A., B.A.

(and Journalism) Asst. Prof.

Bemont, L. H., B.Sc.

Brunt, H. D., B.A., Ph.D.

Maw, A. J. G., M.S.

English

Accountancy Thompson, Prof. R. R. Prof.

Brown, O. N., B.Sc.

Surveying and Geodesy

3 Research Fellows.

Asst. Prof.

Applied Mech. and Hydraulics

McBride, W. G., B.Sc., M. Inst. M.M.

Bell, J. W., M.Sc.

Macdonald Prof.

Prof.

Dean and Prof.

Brown, E., M.Sc., M.Eng.

Civil Engineering

Kelly, A. J., B.Sc. Assoc. Prof. Prof. Weir, James, B.Sc. Asst. Prof. Jamieson, R. E., M.Sc. 1 Demr. Assoc. Prof. Dodd, G. J., M.Sc. Asst. Prof. Law Wood, F. M., M.A., B.Sc. Civil Law Asst. Prof. Howard, Hon. Justice E. E., K.C., 2 Assts. B.A., B.C.L. Chipman, W. F., K.C., B.A., B C.L. Economics Culliton, J., M.A. Asst. Prof. Forsey, Eugene, M.A. LeMesurier, C. S., K.C., B.A.. Lectr. B.C.L. Prof. Electrical Engineering Prof. Christie, C. V., M.A., B.Sc Dal. Civil Procedure Wallace, G. A., M.Sc. Assoc. Prof. Surveyer, Hon. Justice E. F., B.A. Laval, B.C.L. Prof. Burr, E. G., B.Sc. Asst. Prof. Schippel, W. H., B.Sc. Lectr. Tyndale, O. S., M.A., B.C.L. Prof. Howes, F. S., Ph.D. Lectr. Commercial Law [Lectr. I Demr. Bruneau, A. S., B.A., B.C.L. Freehand Draw. & Descr. Geom. School of Commerce Armstrong, H. F., M.A. Prof. Lecturers: 3 Demrs. Mathewson, J. A., B.A., B.C.L. Highway and Municipal E. Nicholson, W. C., B.A., B.C.L. French, R. de L., B Sc. Prof. Smith, A. I., B.A., B.C.L. Law, Engineering Wilson, K. A., B.C.L. Weldon, J. W., K.C., B.A., LL.B. Constitutional Law Lectr. Scott, F. R., B.A., B.Litt. Ox., Mechanical Engineering B.C.L. Assoc. Prof. McKergow, C. M., M.Sc. Prof. Criminal Law Roberts, A. R., M.Sc. Prof. Surveyer, Hon. Justice E. F., B.A. Thomson, L. R., B.A.Sc. Prof. Laval, B.C.L. Prof. Coote, J. A., B.Sc. Asst. Prof. Patten, R. H., B.Sc. Asst. Prof. Ethics, Legal [Prof. Mignault, P. B., K.C., LL.D. Laval McCurdy, L. R., B.Sc. Lectr. I Asst. Evidence [Prof. Metallurgical Engineering Wainwright, A., K.C., B.A., B.C.L. Stansfeld, A., D.Sc. Lond. Law of Insurance Lectr. Sproule, Gordon, M.Sc. Asst. Prof. Claxton, Brooke, B.A., B.C.L. Pascoe, C. F. Spl. Lectr. Roast, H. J., F.C.S. Internat. Law, Private Lectr. MacDougall, G. W., K.C., B.A., I Asst. B.C.L. Prof. Mining Engineering

Roman Law

Corbett, P. E., M.A. (Jurispr.) Ox.

Dainow, J., B.A., B.C.L. Lectr.

[Dean and Prof.

Prof.

Medicine	Neurology and Neu
(for subjects of first 2 yrs.—Anat.,	Clin.
etc., v. supra)	Wilder, G. P., Litt.B., M
Bacteriology [Prof.	M.D.
Murray, E. G. D., M.A., L.S.A.	Russel, C. K., B.A., M.1
Beattie, W. W., B.A., M.D. Lectr.	Mackay, F. H., B.A.
Smith, F., M.D. Lectr.	Cone, W. V., B.Sc., M.D.
	Peterson, J. N., M.D.
Dermatology Burnett, P., M.D. Clin. Prof.	Viner, N., M.D.
	Young, A. W., M.D.
Burgess, J. F., M.D. Clin. Prof. Bruere, A. A., M.D. Lectr.	4 Demrs.
_	Ophthalmology, v. also
2 Demrs.	Byers, W. G. M., M.D., D
Gynæcology and Obst.	Clinical Professors:
Fraser, J. R., M.D. Prof.	Mathewson, G. H., B.A
Little, H. M., B.A., M.D. Prof.	Tooke, F. T., B.A., M.D.
Clinical Professors:	McKee, S. H., B.A., M.
Goodall, J. R., O.B.E., B.A., M.D.,	6 Demrs. and Asst. Den
D.Sc.	Oto-Laryngology
Duncan, J. W., M.D.	White, E. H., B.A., M.I
Burgess, H. C., M.D.	
Bauld, W. A. G., M.D. Lectr.	Ballon, D., B.A., M.D.,
8 Demrs.	Hodge, G. E., M.D.
History of Medicine	Rogers, J. T., M.D.
Macphail, Sir A., B.A., M.D. Prof.	7 Demrs. and Asst. Der
Med., v. also Bact., Ped.	•
Meakins, J. C., M.D., LL.D. Prof.	Pathology
Martin, C. F., B.A., M.D.	Oertel, H., M.D. Strath
Dean and Prof.	Rhea, L. J., B.Sc., M.D.
Howard, C. P., B.A., M.D. Prof.	A
Hamilton, W. F., M.D. Prof.	Waugh, T. R., M.A., M.
Gordon, A. H., M.D. Assoc. Prof.	T and the second
Asst. Profs. :	Lecturers:
Peters, C. A., D.S.O., M.D.	Chase, W. H., M.D.
Mason, E. H., M.D.	Pritchard, J. E., M.D.
Abbott, Maude E., B.A., M.D.	Cone, W. V., B.Sc., M.I
	6 Asst. Demrs.
(Med. Res.). Rabinowitch, I. M., M.D.	Pediatrics
	Cushing, H. B., M.D.
Lecturers:	Lecturers:
Browne, J. G., B.A., M.D.	Chandler, A. B., M.D.
Kaufmann, J., M.D.	Ross, S. Graham, B.A.,
Byers, J. R., M.D.	Lindsay, L., M.D.
Long, C. N. H., M.Sc.	Struthers, R. R., B.A.,
Lewis, D. S., B.A., M.D.	Goldbloom, A., B.A., M.
Wylde, C. F., M.D.	Wright, H. P., M.D.
Moffatt, C. F., M.D.	5 Demrs. and Asst. Den
Campbell, D. G., B.A., M.D.	•
MacCordick, A. H., M.D.	Pharmacy Moore A. P. J. Ph.C.
28 Demrs. and Asst. Demrs.	Moore, A. B. J., Ph.G.

Medicine

Neurology and Neuro-surgery, Litt.B., M.A., B.Sc., Clin. Prof. B.A., M.D. Prof. I., B.A. Prof. B.Sc., M.D. Asst. Prof. N., M.D. Lectr. D. Lectr. ., M.D. Lectr. ogy, v. also Bact. M., M.D., D.Sc. Prof. ofessors: G. H., B.A., M.D. B.A., M.D. , B.A., M.D. Asst. Demrs. ology B.A., M.D. Prof. .A., M.D., F.A.C.S. Lectr. . M.D. Lectr. M.D. Lectr. Asst. Demrs. I.D. Strathcona Prof. B.Sc., M.D. Assoc. Prof. ., M.A., M.D. Asst. Prof. M.D. E., M.D. B.Sc., M.D. s. B., M.D. Clin. Prof. B., M.D. am, B.A., M.D. M.D. R., B.A., M.D. ., B.A., M.D. ., M.D. Asst. Demrs.

Lecturers: Pharmacology Howell, W. B., M.D. (Anæsthesia). Stehle, R. L., M.A., Ph.D. Prof. Tees, F. J., B.A., M.D. Lewis, D. S., B.A., M.D. Asst. Prof. Melville, K. I., M.Sc., M.D. Lectr. McKenty, F. E., M.D. Gurd, F. B., B.A., M.D. Bourne, W., M.D. Lecti. Campbell, D. G., B.A., M.D. Lectr. Powell, R. E., B.A., M.D. (Uro-Harvey, F. W., M.D. Lectr. logy). Patterson, W. J., B.A., M.D. Lectr. Browne, N., M.D. (Orthop. Surg.). 3 Demrs. 18 Demrs. Psychiatry Porteous, C. A., M.D. Clin. Prof. Therapeutics Lewis, D. S., B.A., M.D. Slight, D., M.B., Ch.B., D.P.M. Assoc. Prof. Asst. Prof. 2 Demrs. Dentistry Public Health and Prev. Med. Fleming, A. G., M.B., D.P.H. Clinical Dentistry Walsh, A. L., D.D.S. Assoc. Prof. Prof. and Director. A., M.B., D.Ph., Starkey, T. Crown and Bridge Work M.R.C.S. L.R.C.P. Lond., Bushell, W. C., D.D.S. Lectr. Eng., M.D., C.M. D. Anæsthesia Strathcona Prof. Stewart, C. C., M.D. Lectr. McDonald, R. St. J., B.A., M.D., Asst. Prof. D.P.H. D. Anatomy Abraham, J. W., D.D.S. Lectr. Jones, F. B., M.D., D.P.H. Asst. Prof. D. History, Ethics and Econ. Mitchell, W. T. B., M.B. Asst. Prof. Morris, Campbell, D.D.S. Lectr. Pedley, F. G., B.A., M.D., D.P.H. D. Jurisprudence Asst. Prof. Scott, F. R., B.A., B.Litt., B.C.L. Hincks, C. M., B.A., M.B. Lectr. Assoc. Prof. 2 Demrs. D. Radiography [Prof. Surgery Ritchie, W. L., M.D. Lectr. Archibald, E. W., B.A., M.D. Mat. Med., Dental Pathol., and Bazin, A. T., M.D. Prof. Therapeutics Eberts, E. M., M.D., M.R.C.S. Eng. Henry, Fred. G., D.D.S. Prof. Prof. Barlow, W. L., B.A., M.D. Operative D. Asst. Prof. Baxter, F. H. A., D.D.S. Prof. Keenan, C. B., M.D. Asst. Prof. Walsh, A. L., D.D.S. Assoc. Prof. Henry, C. K. P., M.D. Asst. Prof. Leahy, W. G., D.D.S. Lectr. Patch, F. S., B.A., M.D. (Urology) Orthodontia McClelland, A. W., D.D.S. Prof. Mackenzie, D. W., B.A., M.D. Franklin, G., D.D.S. Lectr. (Urology) Prof. Mowry, D. P., D.D.S. Lectr. Turner, W. G., B.A., M.D., M.R.C.S. Prosthetic D. Eng. (Orthop. Surg.) Cameron, G. S., D.D.S. Prof. Nutter, J. A., B.A., M.D. Dohan, J. S., D.D.S. Prof. (Orthop. Surg.) Clin. Prof. Lowry, I. K., B.A., D.D.S. Lectr. Scrimger, F. A. C., B.A., M.D.

9 Clinical Demrs.

Asst. Prof.

#### AFFILIATED INSTITUTIONS

ACADIA, ALBERTA, Mt. ALLISON, AND St. FRANCIS XAVIER UNIVS. Students who have completed the 2-yr course in Engin. of these Univs. are admitted directly to the 3rd yr. in McGill Engin. courses.

Graduates of the Royal Military College, Kingston, are admitted to the 3rd yr. in McGill Engin. courses. Graduates and students of the Mechanical Science course of Cambridge are admitted to advanced standing in the Faculty of Eng. Particulars obtainable from the Dean of the Faculty.

Truro Agricultural College. Students who have completed the 2-yr. course of study are admitted to the 3rd yr. in the Faculty of Agriculture at Macdonald College.

#### AFFILIATED THEOLOGICAL COLLEGES

DIOCESAN COLLEGE OF MONTREAL. Principal, G. Abbott-Smith, M.A., D.D., D.C.L.

PRESBYTERIAN COLLEGE, MONTREAL. Principal, F. Scott McKenzie, M.A.

United Theological College, Montreal. Principal, J. Smyth, B.A., D.D., LL.D.

Students enter after graduation or pursue courses concurrently in Arts at the Univ., in Theol. at the Coll.—6 yrs. in all.

#### GENERAL INFORMATION

Established in 1821 by Royal Charter. For early history and constitution, see Year Book for 1929. Income from Investments, about \$1,100,000.

Special Features. Medicine and Engineering are particularly strong. The Graduate Fac. is growing rapidly, and a large amount of research work is being done in Chem., Geol., Physics, and the medical and biological Sciences.

LIBRARIES, 400,000 vols. (Medical, 38,000; large Ophth. Dept.) and 40,000 pamphlets; Peter Redpath collection of 10,000 political and religious tracts dating from a.d. 1600; E. S. Wood Library of Ornithology; Blackader Library of Archit.; Blacker Library of Zool.; Travelling Library; Gest Chinese Research Library; Osler Library (8000 vols.). LABORATORIES: Chemistry, Physics, Zool., Bot., Physiol., Psych. Research, Pulp and Paper Research, Agric. Research. FARM, Live Stock and Grain, 786 acres. ASTRON. OBSERVATORY. MEDICAL MUSEUM (Strathcona), said to be the finest in America; rich collection of disturbances of heart and vascular system and aneurisms. Redparm Museum (botanical, geological, and zoological collections) and the DAVID ROSS McCord HISTORICAL MUSEUM. HOSPLS. available for clinics, general—800 beds, several special.

FACULTIES. Arts and Science, Law, Medicine, Engin. (Archit., and 6 branches of Engin.—Chem., Civil, Elec., Mech., Metall., Mining), Agric., Dentistry, Music, Graduate Studies. The Univ. has also Schools of Commerce, Physical Educn., Graduate Nurses, Library School, and (in Macdonald Coll.) Household Science and a School for Teachers.

ADMISSION. School Cert. and British Matricn. Examns. accepted. McGill Matricn. Examn. is held in London in June: particulars obtainable from W. A. Bulkeley Evans, C.B.E., M.A., LL.D., 5 Paper Buildings, Temple, London, E.C.4.

Degree Courses. 1 yr.—B.L.S. (Library Science), post-graduate; 3 yrs.—B.C.L., Mus.Bac.; 4 yrs.—B.Com., B.A., B.Sc., B.S.A., B.H.S. (Household Science), D.D.S.; 5 yrs.—B.Arch., B.Eng.; 8 yrs.—M.D., C.M.

HIGHER DEGREES. Obtainable by r yr. of resident graduate study at McGill, thesis and examn.—M.A., M.Sc., M.Eng., M.Com.; by 3 yrs. of graduate study—Ph.D.; by valuable contribution to legal science—D.C.L.; by a composition and examn. not less than 7 yrs. after taking the Mus.Bac.—Mus.Doc.; on recommendation of Board of Grad. studies—D.Sc., D.Litt.

DIPLOMAS. Lic. Mus., D.P.H., Teachers', Graduate Nurses', Physical Edn.

WINTER COURSE IN AGRICULTURE. The Winter Course in the Faculty of Agriculture has been extended from one year to two years. This course is intended to provide a general education for boys who intend to farm, and equip them with such a technical knowledge of agriculture as will enable them to deal with the problems arising in connexion with their work. The work is so arranged that students may choose subjects that definitely relate to the type of farming in which they are most interested.

Closely connected with this extension is the "old country boy" project, under which boys from the British Islands are encouraged to take up this diploma course at Macdonald College so as to fit them for the work of farming, and every effort is made, not only to give them the theoretical education that is needed, but also the practical. Since this plan was put into effect two or three years ago forty-three boys, representing thirty English public and

secondary schools, have been placed on selected farms.

ATTENDANCE at lectures at the Univ. or Macdonald or Affiliated Coll. is indispensable.

Fees. Per annual session, Arts, \$150; Engin., \$205; Med., \$250; Dent., \$210; Law, \$205; Music, \$225; Comm., \$175; Agric., residents of Canada, \$50, others, \$100; Library Sci., \$150; M.A., M.Sc., M.Eng., or M.Com. course, \$70; Ph.D. course, each year, \$70; Graduation fee for M.A., M.Sc., M.Eng., or M.Com., \$20; Ph.D., \$30; D.Sc. or D.Litt., \$80; Mus.Doc., \$100.

Scholarships for Graduates. In Econ. and Polit. Sc., Allen Oliver, \$500; Montreal Manufrs. Assocn. and the Graduate Working Fellowship, \$800 each; Chem., Sterry Hunt, \$900; Geol., Le Roy, \$700; Mining Research and Teaching Fellowships, 3 of \$750 each; Med. Research, especially Obstetrics and Gynæc., A. A. Browne Endowment, \$10,000 endowment open to grads. of any recognized Med. school; Path. Research, J. Douglas Endowment, \$25,000; "Delta Upsilon," \$950; The Moyse Travelling Scholarships, 2 of \$1500 each; Law, Macdonald Endowment, \$20,000; Hugh McLennan, \$1000.

RESIDENCE. Women, Roy. Vict. Coll.; men, Strathcona Hall (Y.M.C.A.), accommodation for 60. Physical Training is compulsory, and students are subjected to physical examn. on entering the Univ. Board and residence in Roy. Vict. Coll., \$500 per session; approved lodgings, \$40 per month and upwards; rooms only, \$15 per month and upwards; board, \$25.00 and upwards.

McGill Union dining-room, accommodating 120 students at a time, provides inexpensive meals.

Publications. Calendar (July); Coll. Announcements (May to July); Annual Report (Dec.); McGill News, quarterly, by Graduates' Soc.; McGill Daily, by students; Lectures and Addresses; Catalogue of Scientific Periodicals in Canadian Libraries, 1924, \$5; McGill and its Story, 1821-1921, by Cyrus Macmillan (London, John Lane; New York, John Lane & Co.; Toronto,

Oxford Univ. Press, \$3); A Historical Sketch of the Medical Faculty and of the Origin of McGill University, by Dr. Maude Abbott.

## THE YEAR 1930-31

Benefactions. Estate, late Mrs. J. H. R. Molson, \$10,000; Miss M. A. Nutting, to establish a prize in Law, \$1000; Endowment of the Edwin Botsford Busteed Memorial, by Mrs. E. B. Busteed in memory of her late husband, \$6000; Sir William Peterson Scholarship and Prize, endowed by Lieut.-Col. W. G. Peterson in memory of his father, the late Sir Wm. Peterson, \$11,000; for the Department of Neuro-Surgery, Mrs. A. A. Hodgson, Mr. A. A. Hodgson, Mrs. Jean Reford, Dr. L. L. Reford, \$9000; Pulp and Paper Research Inst. of Canada for scholarship in Phys. Chem., \$2000; Canadian Pulp and Paper Assn., for the Dept. of Industrial and Cellulose Chem., \$7500; Carnegie Corporation of New York, for the Library School, \$18,000; Rockefeller Foundation, for research in Surgery, \$27,500; American Otological Soc., for research in Physiol., \$2000; Spelman Fund of New York, for child clinic, \$6000; E. W. Beatty, for the E. W. Beatty Scholarship for 1930-31, \$1000; Dr. and Mrs. J. R. Fraser, for special work in Obstetrics, \$1200; Mr. and Mrs. R. R. Blacker, for the Blacker Library of Zool., \$5000; Dr. Casey A. Wood, for the same purpose, \$1000; Montreal Board of Trade, for an industrial survey of Montreal, \$2000; Mr. Percy P. Cowans, for scholarship in surgery, \$1000.

New Buildings. The extensions to the Royal Victoria Coll. (Women's Residence) and the new Divinity Hall have been completed.

CHANGES IN ORGANIZATION. The Faculty of Applied Sci. has become the Faculty of Engineering. In May 1932 and thereafter the degrees granted will be B.Eng. and M.Eng.

EXTRA-MURAL AND EXTENSION WORK. Extension courses in a variety of subjects are given in the afternoon and evenings for residents of Montreal and vicinity. Some prepare students for special examns, such as the First and Final examns. of the Canadian Assn. of Cost Accountants and the Inter. and Final examns. of the Chartered Inst. of Secretaries. About forty series of lectures are offered in outside centres.

RESIGNATIONS. A. R. Gordon, Prof. of Hebrew; G. M. Tait, Lectr. in Hortic.; Mme. Durand-Joly, Lectr. in French; H. S. Birkett, Prof. of Oto-Laryngol.; Carleton W. Stanley, Prof. of Greek; Hon. Mr. Justice W. L. Bond, Lectr. in Dental Jurispr.; A. A. Bruère, Asst. Prof. of Bacteriol.; Howard Pirie, M.D., Lectr. in Radiol.

DEATHS. H. M. MacKay, Dean of the Fac. of Applied Sci.; Harold F. H. Eberts, Asst. Demr. in Med.

HONORARY DEGREES. *LL.D.*—Lord Moynihan of Leeds, K.C.M.G., C.B., President of the Royal Coll. of Surgeons (England), Sept. 18, 1930; H.E. the Rt. Hon. the Earl of Bessborough, G.C.M.G., LL.D., Governor-General of the Dominion of Canada, May 29, 1931.

STUDENTS. Full-time: total, 2904, including 239 graduates. Part-time: total, 104.

DEGREES. B.A., 145; B.Sc. (in Arts), 35; B.Com., 33; B.C.L., 24; B.Arch., 7; B.Sc. (in Applied Science), 45; B.S.A., 19; B.L.S., 14; B.H.S., 7; D.D.S., 8; M.D., C.M., 100; M.Sc., 22; M.A., 34; M.Com., 1; Ph.D., 11; Mus. Doc., 1.

DIPLOMAS. Licentiate in Music, 9; Pharmacy, 3; Public Health, 1; Social Service, 6; Graduate Nurses, 24.

## McMASTER UNIVERSITY, HAMILTON, ONT.

CHANCELLOR AND PRINCIPAL—HOWARD P. WHIDDEN, B.A. Acadia, D.D. Dennison, LL.D., D.C.L.

REGISTRAR AND TREASURER—E. J. BENGOUGH, B.A. LIBRARIAN-DOROTHEA M. HALLFORD, B.A.

PROFESSORS, LECTURERS, ETC. [Prof. Biology Smith, R. W., B.A., Ph.D. Chic. Gaiser, Lulu O., B.A. W. Ont., History M.A., Ph.D. Columb. Assoc. Prof. Chemistry Burke, C E., Ph.D. Ill., M.A. Prof. Walker, W. O., M.A. Tor. Prof. Chemistry, Physical Lectr. English McLay, W. S. W., B.A. Tor., M.A. Harv., D.Litt. Ac., LL.D. Qu., Dean, Fac. of Arts Haddow, G. C., M.A. Ox. and Tor. Asst. Prof. Gundy, H. P., M.A. Tor. Lectr. Classics Stearn, C. H., M.A. Camb., B.D. Lond. Carpenter, Marjorie, M.A. Mo., Ph.D. Radcliffe (Dean of Women) Asst. Prof. Salmon, E. T., B.A. Syd., B.A. Michell, H., B.A. Ox., M.A. Man. Camb. (on leave) Asst. Prof. Day, A. Æ., M.A. Tor.

French Briquet, P. E., L. ès L. Geneva Prof. Coll. Freeman, H. A., B.A. Sask. Lectr.

McNairn, W. H., M.A. Tor., Ph.D. Prof. Tor.

[Prof. German Mueller, P. W., B.A. Tor., M.A.

New, C. W., B.A. Tor., Ph.D. Chic., B.Th., B.D. MacDonald, N., B.A. Qu., M.A. Asst. Prof. Harv.

[Prof. Mathematics Findlay, W., M.A., Ph.D. Chic. Johns, A. E., M.A. Tor.

Spl. Lectr. Psychology, Philosophy, and Ethics

Ten Broeke, J., M.A. Middlebury, Ph.D. Yale, LL.D. Bensen, R. C., Ph.D. Chic., M.A.. Asst. Prof. B.Th.

Physics

Dawes, H. F., M.A. Tor., Ph.D. Tor., F.R.S. Can. McLay, A. B., M.A. Tor., Ph.D. Asst. Prof. Tor., B.A.

Political Economy

Prof. Taylor, K. W., M.A. Chic., B.A. Assoc. Prof.

Public Reading and Speaking Kirkpatrick, F. H., Ph.D. Central Spl. Lectr.

Spanish

Briquet, P. E., L. ès L. Geneva Prof.

#### Theology

Christian Education, Sociology, and Theology

McCrimmon, A. L., M.A. Tor., LL.D. McM. and Acadia Prof.

Church History

Gilmour, G. P., M.A. Yale, B.A., B.Th. Asst. Prof.

Hebrew and Old Testament Interpretation

Parker, N. H., B.Sc. Mississippi, Th.D. Southern Bapt. Seminary Prof. Homiletics and Pastoral Theol.

MacNeill, J., D.D. McM. and
Baylor, B.A. (Princ., Fac. of
Theol.)

Prof.

Missions and Evangelism

Orchard, M. L., B.A. New Bruns., M.A. Colgate, B.D. Colg. Prof. New Test. Interpretation

Prof. Parsons, E. W., M.A., Ph.D., D.D. Visiting Prof.

Religious Education [Spl. Lectr. Merrill, B. W., B.A. Tor., B.Th.

Physical Education

Burridge, A. A., B.A. Director.

#### AFFILIATED COLLEGE

Brandon College, Brandon, Man., controlled by Baptist Union of W. Canada. Affild. for courses in Arts. President, J. R. C. Evans, Ph.D., Prof. of Geol. 12 other Professors and 9 other Teachers in Arts Dept.

#### GENERAL INFORMATION

In 1887 Toronto Baptist College and Woodstock College, Woodstock, were united under the name of McMaster University, and their already existing endowments were increased by \$900,000, received under the will of the Hon. Wm. McMaster. The Board of Governors (16) are elected by the Baptist Convention of Ontario and Quebec. There is no religious test for entrance, but the Profs. and Lectrs. must be members of some evangelical church. Moulton Ladies' Coll., Toronto (founded in 1888), is represented on the Senate.

LIBRARY, 32,500 vols. LABORATORIES: Phys., Biol., Chem., Mineral.

Degree Courses. 4 or 5 yrs., B.A.; 3 yrs. (after completing 2 yrs. of Arts course), B.Th.; 6 yrs., combined B.A. and B.Th. The first 2 yrs. in Arts do not necessarily involve attendance at lectures. Brandon Coll. provides instruction in Swedish for immigrants from that country.

The B.A. degree is recognized by the Univ. of London.

HIGHER DEGREES. Open to B.A. after 1-yr. course (attendance at lectures not required)—M.A.; to B.Th. who are also B.A. and have taken 3 yrs. in Hebrew, involving 1 yr. of study after graduating as B.Th.—B.D.

DIPLOMA. English Theol., 3 yrs.' course.

CERTIFICATE. Missionary Training for women.

ADULT EDUCATION. For adults who have not the necessary foundation for admission to the English Theol. or Women's Missionary course, a year of literary and biblical work qualifying for such admission is provided, also evening classes in Arts for teachers and others, leading to B.A. in Genl. Course.

FEES. Annually, for tuition, examn., library—Arts, \$100, Theol., \$25. For student organizations, athletics, etc., men, \$13.25, women, \$9.75.

RESIDENCE. Board and room per session, \$279; men in Edwards Hall, women in Wallingford Hall.

Publications. Calendar (June); McMaster Monthly (students' magazine); McMaster Silhouette (students' weekly paper); McMaster News (pub. by Alumni Assn.), eight times a year.

## THE YEAR 1930-31

DEVELOPMENT. Enrolment increased about 25 per cent since transfer of the Univ. from Toronto to Hamilton in 1930.

Honorary Degrees. *LL.D.*—Edward Wentworth Beatty, Daniel Buchanan, Sydney Chilton Mewburn, Frank William Padelford, Rush Rheos, Malcolm William Wallace. *D.D.*—Albert William Beaven, John Howard McDonald, Charles Hiram Schutt, Edward Wilson Wallace.

STUDENTS. Full-time: Arts, 367; Theol., 41. Part-time, 102, including 30 graduates.

Degrees. B.A., 57, also at Brandon College, 29; M.A., 7, also at Brandon College, 1; B.D., 1; B.Th., 4; Missionary Course for Women, 2.

## UNIVERSITY OF MANITOBA, WINNIPEG

VISITOR-THE LIEUT.-GOVERNOR OF THE PROVINCE.

Chairman of the Board of Governors—John A. Machray, M.A., LL.D., K.C.

CHANCELLOR-Most Rev. S. P. Matheson, D.D., D.C.L., LL.D.

Vice-Chancellor-Rt. Rev. Mgr. A. A. Cherrier, LL.D.

President—James A. MacLean, Ph.D., LL.D.

Registrar and Secretary of Board of Governors—W. J. Spence, B.A., LL.D.

Assistant Registrar—W. B. H. Teakles, B.A.

LIBRARIAN-F. E. NUTTALL, M.A.

DEAN OF WOMEN-URSILLA N. MACDONNELL, M.A., Ph.D.

#### PROFESSORS, LECTURERS, ETC.

Agriculture, v. infra

Anatomy, v. also Med.-Surg. Inkster, R. G., M.B., Ch.B., M.D.

Edin. Prof. Jackson, J. L., M.A. Alta., M.B.

Tor. Asst. Prof. Boyd, G. I., M.B., Ch.B., M.D., F.R.C.S. Edin. Asst. Prof.

Demrs.:

Goodwin, A. M., M.D.

Stewart, C. B., M.D.

Richardson, R. W., M.D. Sommerville, A. N., M.D.

MacCharles, C. W., M.D., C.M.

5 Student Demrs.

Architecture

Osborne, M. S., B.Arch. Col. and Ohio, M.Sc. (Arch.) Col. Prof. Russell, J. A., S.B. Mass. Inst.

Russell, J. A., S.B. Mass. Inst. Tech. Asst. Prof. (on leave). Reed, W. V., B.S. (Arch.) Ill.

Interim Asst. Prof. Bio-Chemistry

Cameron, A. T., M.A., B.Sc. Edin., F.I.C. Prof. White, F. D., Ph.D. Edin., F.I.C. Lectr.

Green, A. C., B.A.

Botany

Buller, A. H. R., B.Sc. Lond., D.Sc. Birm., Ph.D. Leip., LL.D. Prof.

Roberts, H. F., B.A. Kans., LL.B. N.-Wstn., M.Sc. Kans. (Agr.) Asst. Prof.

Lowe, C. W., M.Sc. Birm.

Asst. Prof.

2 Demrs. and 7 Student Assts.

Chemistry

Parker, M. A., B.Sc. Glas., LL.D., F.I.C. Prof.

Armes, H. P., B.Sc. Leeds, Ph.D. Stras. Assoc. Prof.

Campbell, A. N., D.Sc. Aberd., M.Sc., Ph.D. Lond., F.I.C.

Asst. Prof. Hiebert, P. G., M.A. Tor., M.Sc., Ph.D. McG. Asst. Prof.

Kidd, H. V., B.Sc. Ass 2 Demrs. and 15 Student Assts.

Classics [Prof. Clark, F. W., Ph.D. Chic., B.A. Hugill, W. M., B.A. Tor. Asst. Prof. Johnson, S., M.A. Asst. Prof. I Fellow.

Demr.

Brownell, G. M., M.Sc. Man., Ph.D. Engineering, Civil Asst. Prof. Finlayson, J. N., M.Sc. McG., Minn. 6 Student Assts. M.E.I. Can. Prof. Moffatt, R. W., B.A.Sc. Tor. German Assoc. Prof. Heinzelmann, J. H., B.A. Ill., Macdonald, A. E., M.Sc. McG. Ph.D. Chic. Prof. Assoc. Prof. Mainland, W. F., M.A. Edin. Herriot, G. H., B.Sc. Qu., D.L.S., Asst. Prof. M.E.I.C. Assoc. Prof. Jones, Mrs. Anna C. A., B.A. Asst. Riddell, W. F., B.Sc. (C.E.) History Asst. Prof. Fieldhouse, H. N., M.A. Scott. W. M., B.A.Sc. McG., B.A. Ox. Prof. M.E.I.C. Lectr. Howe, J. E., B.A. Yale, M.A. 4 Demrs. Asst. Prof. Acad. Engineering, Electrical Marshall, D. W. H., M.A., LL.B. Fetherstonhaugh, E. P., B.Sc. Glas., B.A., B.Litt. Ox. McG., M.E.I.C., Dean of Fac. Asst. Prof. Prof. MacFarlane, R. O., M.A. Qu., A.M. Dorsey, J. W., E.E. Lehigh Harv. Asst. Prof. Asst. Prof. Law, v. infra-Affiliated Colleges 3 Demrs. Mathematics Engineering, Mechanical Wilson, N. R., M.A. Tor., Ph.D. Hall, N. M., O.B.E., B.Sc. McG., Chic. Prof. Prof. M.E.I.C. Warren, L. A. H., M.A. Qu., Ph.D. English Chic., F.R.A.S. Prof. Allison, W. T., M.A. Tor., Ph.D. Tier, W., M.A. Tor., Dean of Fac. Yale Prof. of Arts Prof. Perry, A. J., M.A. Yale Prof. Milne, T. H., M.A. Tor. Asst. Prof. Asst. Profs.: Lawson, J. W., B.A. Lectr. Carver, P. L., B.A. Leeds. 2 Fellows. Argue, R. F., M.A. Pharmacy [Prof. Wheeler, A. L., B.A. Br. Col., Bletcher, H. E., B.Sc. (Phar.) M.A. Tor. M'Dougall, D., M.Sc. Asst. Prof. Saunders, Doris B., M.A. Lectr. Philosophy Prof. French Wright, H. W., B.A., Ph.D. Corn. Osborne, W. F., M.A. Tor. Lodge, R. C., M.A. Ox. Prof. Evans, W. D., M.A. Tor. Physics [Prof. Asst. Prof. Allen, Frank, M.A. N. Bruns. & Ballu, Céline A., B.A. Wisc. Lectr. Corn., Ph.D. Corn., LL.D. Richard, M. E. J., B.A. Alta. McClung, R. K., B.A. Camb., M.A., Lectr. D.Sc. McG. Assoc. Prof. Meredith-Jones, C., M.A. Wales Young, J. F. T., M.A. Tor., Ph.D. Lectr. Tor. Assoc. Prof. Geology and Mineralogy Anderson, W. A., M.A. Chic., De Lury, J. S., B.A. Tor., Ph.D. M.Sc. Lectr. Minn. Prof. 4 Demrs. and 7 Student Assts. Kirk, S. R., B.Sc., Ph.D. St. And. Asst. Prof. Physiology, v. Medicine

Political Economy Clark, A. B., M.A. Edin. Prof. Jones, R. F., M.A. Liv. Asst. Prof. Waines, W. J., M.A. Lectr. Zoology Wardle, R. A., M.Sc. Manc. Prof. Riley, C. F. C., M.A. Doane, B.S. Mich., M.S. Ill. Asst. Prof. Neave, F., M.Sc. Manc. Lectr. 3 Demrs. and 2 Student Assts.  Agriculture and Home Economics	Robinson, A. D., B.A. Sask., M A., Ph.D. Minn. Asst. Prof. Clothing and Textiles [Lectr. Groff, Clara Louise, B.S. Col. McFadden, Eleanor G., B.S. Iowa Lectr. Dairy Husbandry Brown, R. W., B.S.A. Tor., M.S. Iowa Prof. Thorneloe, K. C., B.S.A., B. Col., M.S. Iowa Lectr.
[at Manitoba Agricultural College]	Education [Lectr.
McKillican, W. C., B.S.A. Tor.	Moxon, Mary C., Ph.B. Chic.
Agric. Economics Grant, H. C., B.S.A., M.A. Prof. Agricultural Engineering	English Hopper, C. R., M.A. Assoc. Prof. Lectr. Entomology
Shanks, G. L., B.S.A. Prof.	Mitchener, A. V., B.A. McM.,
A $g$ $r$ $o$ $n$ $o$ $m$ $y$	B.S.A. Tor., M.Sc. Prot.
M'Rostie, G. P., B.S.A. Tor., M.S.A., Ph.D. Corn. Prof. Ellis, J. H., B.S.A., M.S. Minn.	Home Economics Duncan, Mrs. L. C., Ph.B. Chic., M.A. Director.
Assoc. Prof. Elders, A. T., M.S. Minn., B.S.A. Asst. Prof.	Horticulture and Forestry Brodrick, F. W., B.S.A. Tor. Prof.
Animal Husbandry Wood, G. W., B.S.A. McG., M.S.	Household Art South, Mrs. Jean Lectr.
Wisc. Prot.	Mathematics
Brown, J. M., B.S.A. Tor., M.S. Minn. Assoc. Prof.	Temp. Lectr.
Sommerfeld, H. B., M.S. Wisc.,	Nutrition
B.S.A. Sask. Asst. Prof.	Hiltz, Mary C., B.S. Col., M.A. Tor.
Bacteriology and Animal Patho-	Asst. Prof. McLauchlin, Florence E., B.Sc.
logv	(H.E.) Lectr.
Savage, Alfred, B.S.A. McG., D.V.M. (Corn.), M.R.C.V.S. Prof.	Physical Education Youmans, R. W. Director.
James, N., B.S.A. Tor., M.S. Iowa (Bact.) Asst. Prof.	Physics [Lectr. Thomson, W. A., B.S.A. Sask.
Jamieson, M. C., B.S.A. Tor.	
(Bact.) Lectr.	Plant Pathology Bisby, G. R., B.S. So. Dak., M.A.
Biology	Col., Ph.D. Minn. Prof.
Jackson, V. W., B.A. Qu., M.S. Minn. Prof.	Poultry Husbandry
Chemistry [(Agr. Chem.) Prof.	Herner, M. C., B.S.A. Tor. Prof.
Geddes, W. F., B.S.A., M.A. Tor., M.S., Ph.D. Minn.	5 Instrs. and an extension service staff of 14.

#### Medicine

(for subjects of first 2 yrs.—Anat., etc., v. supra)

Bacteriology and Immunology Cadham, F. T., B.A., M.D. Prof. Williams, D. H., M.D., B.Sc. (Med.) Lectr.

Gynæcology and Obstetrics
Mackay, D. S., O.B.E., M.D.,
C.M., F.R.C.S. Edin.,
F.A.C.S. Prof.

McQueen, J. D., D.S.O., M.D., C.M., F.A.C.S. Assoc. Prof. Bjornson, O., M.D., C.M., F.A.C.S. (Obs.) Prof.

Mitchell, R. B., B.A., M.D., C.M., F.A.C.S. (Obs.) Assoc. Prof. McGuinness, F. G., M.D.

(Obs.) Asst. Prof.

Lectrs. in Gynæcology: Rice, C. R., M.D., C.M. Burns, C. W., B.A., M.D., C.M., F.A.C.S. MacCharles, C. W., M.D.

Lectrs. in Obstet.: Campbell, W. G., M.D., C.M. Abbott, W. F., M.C., B.A., M.D., C.M.

Arthur, C. L. T., M.D. Kobrinsky, S., M.D. I Demr. in Obs.

Laryngology and Otology Fletcher, G. W., M.D., F.A.C.S.

Prof. Leishman, A., M.D. Assoc. Prof. Washington, E. J., M.D.

Assoc. Prof. Black, R., M.D. (Otol.) Lectr. Magee, R. C. E., B.A., M.D.

(Otol.) Lectr.

Medicine and Clinical Medicine
Gilmour, C. R., M.D., C.M. Prof.

Assoc. Profs. of Med.:
Burridge, A. J., M.D., F.A.C.P.
Davidson, J. R., B.A., M.D., C.M.
Hart, F., M.D., C.M., M.R.C.S.,
L.R.C.P.

Hunter, C., M.A., M.D., M.R.C.P. Lond. Moorhead, E. S., M.B., B.Ch. Dub. Stewart, D. A., B.A., M.D., LL.D. Mathers, A. T., M.D., C.M. (Psychiatry), Dean of Fac.

Adamson, J. D., M.D.

Asst. Profs. of Med.: Alexander, A. B., B.A., M.D. Chown, G., O.B.E., B.A., M.D., C.M. (Pædiatrics).

Warner, N. W., M.D. Mackay, H., M.D., C.M. (Dermatology).

Lectrs. in Med.:
Bell, L. G., M.D., M.R.C.P. Lond.
Benner, F. A., M.D., C.M.
McIntyre, Dougald, M.D.
Olson, B. H., B.A., M.D.
McMillan, J. C., M.D., F.A.C.P.

Lectr. in Roentgenology and Electro-therapy. Davidson, A. M., M.D. (Dermatol.).

Walker, S. B., M.R.C.P., M.R.C.S. (Eng.).

Hossack, J. C., M.D., C.M. Kitchen, H. D., M.M., M.D., C.M. Turner, F. M., M.D. Hollenberg, A., B.A., B.Sc., M.D. M'Eachern, J. M., M.D. Bedford, G. V., M.D.

Forensic Medicine and Toxicology

Speechly, H. M., M.R.C.S., L.R.C.P. Lectr.

Ophthalmology
Bell, T. H., M.C., M.D., C.M.,
F.A.C.S. Prof.
Stefansson, J., M.D. Lectr.
Campbell, W.E., B.A., M.D. Lectr.
2 Demrs.

Pathology

Boyd, W., M.D., M.R.C.P. Edin., Dipl. Psych. Prof. Nicholson, D., M.D., C.M., M.R.C.P. Lond. Asst. Prof. 2 Demrs., I Student Demr. Pædiatrics, v. Medicine

Physiology and Pharmacology
Moorhouse, V. H. K., M.C., B.A.,
M.B. Tor. Prof.
Ormerod, M. J., M.B. Asst. Prof.
Fraser, R. H., M.D. Lectr.
2 Demrs., I Student Demr.

Preventive Medicine and Public Health

Douglas, A. J., B.A., M.D., C.M. Prof.

Fraser, M. S., B.A., M.D., C.M. Lectr.

2 Instrs.

Surgery and Clinical Surgery
Brandson, B. J., B.A., M.D.,
C.M., F.A.C.S. Prof.

Assoc. Profs. of Clin. Surg.: Campbell, A. M., B.A., M.D., C.M., Fletcher, R. D., M.A., M.D., C.M., F.A.C.S. (Urology). Galloway, H. P. H., M.D., C.M.,

F.A.C.S. (Orthop.).
Gibson, A., M.B., Ch.B., F.R.C.S.,

F.R.S.E. (Orthop.).

Gunn, J. A., C.B., O.B.E., B.A., M.D., F.A.C.S. Lehmann, J. E., M.D., F.A.C.S.

Mann, W. L., B.A., M.D., C.M. Maclean, N. J., M.D., F.A.C.S. Waugh, O. S., M.D., C.M., F.A.C.S. Webster, W., M.D., C.M. (Anæsthetics).

Asst. Profs. of Clin. Surg. :

Boardman, E. J., M.D. (Urology). Fahrni, G. S., M.D., C.M., F.A.C.S.

Lectrs. in Clin. Surg.:

Gardner, W. A., B.A., M.D., C.M., F.A.C.S. (Orthop.).

Hamilton, T. G., M.D., F.A.C.S.

McIvor, N. K., M.D., F.A.C.S. Musgrove, W. W., M.D., C.M., F.A.C.S.

Murray, A. A., M.D., F.A.C.S. (Orthop.).

Aikenhead, D. C., M.D.

Coad, W. E. R., M.D., C.M., M.R.C.S.

MacCharles, M. R., M.D., C.M., F.R.C.S. Edin.

McEachern, J. D., M.D., F.A.C.S. McIntyre, D. F., M.D., F.A.C.S. Secord, W. H., M.D., C.M.

Burns, C. W., B.A., M.D., C.M., F.A.C.S.

Collin, L. D., B.L., M.D.

McKinnon, A. P., M.D., C.M.

Smith, F. A., M.D. (Radium Therapy).

Thorlakson, P. H. T., M.D., C.M. 4 Demrs. in Clin. Surg.

Therapeutics, v. Medicine

AFFILIATED COLLEGES represented on the Council, the first four having power to confer degrees in Divinity:

St. Boniface College, St. Boniface (R.C.). Rector—Rev. F. Faure, S.J.

St. John's College, Winnipeg (C. of E.). Warden—Rev. G. A. Wells, C.M.G., M.A.

Manitoba College, Winnipeg (United Ch. in Canada). Principal—John MacKay, M.A., D.D.

Wesley College, Winnipeg (United Ch. in Canada). President—J. H. Riddell, D.D., LL.D.

Manitoba Law School, Winnipeg. Dean—E. H. Coleman, LL.B.

#### GENERAL INFORMATION

Established 1877, the Univ. was reconstituted in 1900 and 1917. For early history, see *Yearbook* for 1929. The Univ. has the sole power of conferring degrees in Arts, Science, Law, Med., Engin., Pharmacy, Agric., and Archit. in

the province. It received in 1898 from the Dominion Govt. a land grant of 150,000 acres.

Most of the univ. buildings at present occupy a site in the heart of the city of Winnipeg with a population, including St. Boniface, of over 300,000. The Agricultural Coll. is at Fort Garry, 7 miles distant. This has been selected as the future permanent site of the Senior Division in Arts and Science and of the Fac. of Engin. and Archit. New buildings, now in process of construction, are expected to be ready by Sept. 1932.

Univ. Library, 52,000 vols.; 551 periodicals received. In the Medical building is housed the library, 2000 vols, of the Manitoba C.P.S. in addition to the Med. College library of 7400 vols. The Agric. Coll. has a library of over 8000 vols., and receives 171 periodicals. Laboratories: Anat., Bact., Bot., Chem., Engin. (Material testing—200,000 lbs., Cement, Elec.), Geol. and Mineral., Path., Physics, Physiol., Zool. Museums: Anat., Embry., Bot., Geol., Path. Hospitals available for clinics: 2 general (1000 beds) and several special, including tuberculosis. Farm on Agric. Coll. estate (676 acres).

FACULTIES. (1) An Arts and Science Faculty providing instruction in all subjects of undergraduate courses in Arts (except 5 options), Science, and Phm. (2) Medicine. (3) Engineering and Archit. (4) Agriculture and Home Economics. Other subjects of Arts course are taught in the affiliated Colls. Law is taught in the Manitoba Law School, which is under the direction of trustees jointly appointed by the Univ. and the Law Society of Manitoba.

Matriculation examn. is conducted in June by the Examn. Board of Manitoba, also a limited Matricn. in Sept. Matricn. subjects for Arts or Sci. courses: English, Hist., Maths., Latin or Greek or French or German; a second language or 2 of the following—Physics, Chem., Genl. Science, Biol.; a third language or 2 sciences not already taken, or 1 science not already taken with Home Econ. or Indust. Arts or Music or Agric. or Commnl. work. Exemption from examination is allowed in the subjects of Grades IX. and X. Matricn. to pupils of the Collegiate Institutes of the province, or of the Preparatory schools in connexion with the affiliated Colleges, who are recommended for such exemption by their school principals. Entrance requirements for Medicine are clear standing of two pre-medical years in Arts and Science; for Law of 2nd year in Arts, with Latin to the end, at least, of the 1st yr.; for Engineering standing of one pre-engineering year in Arts and Science, and for Architecture one pre-architectural year in Arts and Science. Members of any British or approved Univ. may be admitted ad eundem statum or gradum without Entrance examn.

Degree Courses. 4 yrs.—B.A., B.Sc., B.Sc. (C.E. or E.E.), B.Sc. (Phar.), B.Arch., LL.B., B.S.A., B.Sc. (H.Ec.); 5 yrs., following 2 pre-medical yrs.—M.D.; 5 yrs.—B.A. (Hons.), B.Sc. (Hons.). Graduates in Med. of at least 2 yrs.' standing with certain prescribed training and experience may obtain C.M. on passing written, oral, and practical examn., and presenting a satisfactory thesis. A course involving research and governed by specl. regns. leads to the degree of B.Sc. (Med.).

ATTENDANCE at lectures is obligatory for all except extra-mural students. Extra-mural students are accepted for a limited programme, subject to the approval of the Bd. of Studies, but may not take courses in Mcd., Sc., Arch., or Engin., or certain courses in Arts, especially those involving oral, practical, or lab. work. Extra-mural registration in Arts is limited to students resident in Manitoba, and a minimum of r yr.'s attendance at this or another approved Univ. is exacted before the B.A. is conferred.

A UNIT SYSTEM has been adopted in the Arts and Science Faculty, the unit being "a body of work to which is assigned for instructional purposes one hour of lecture or other class-room exercise per week or one continuous laboratory period of 2 or 3 hours per week, throughout an entire session, or the equivalent." 40 units of credit in the "Junior Division" (work normally done in first two sessions) and 32 in the Senior Pass Division (for Honours, 48 in the Senior Honours Division) are required for the degree. For the B.A.—English (2 yrs.), a foreign language (2 yrs.), and Maths. (1 yr.) are compulsory.

The M.A. may be obtained by candidates possessing the Honours B.A. of Manitoba, or an equivalent degree, by an extra year of full-time study under the direction of a committee of instructors. Candidates for the M.A. possessing the pass B.A. of Man., or an equivalent degree, must first obtain 16 units of

credit in Honours Courses. A thesis is required as well as examn.

The M.Sc. requirements are at least one yr.'s grad. work in one or more of the Sc. depts. of the Univ. (incl. Maths.) or in the dept. of Civil Engin. or that of Elect. Engin., an examn. and a thesis. Candidates for the M.Sc. possessing the pass B.Sc. of Man., or an equivalent degree, must first obtain 16 units of credit in Honours Courses. While taking the LL.B. course a student may simultaneously obtain the Law Society's qualification for practice. An extra-mural course in Law may be taken by students residing in Manitoba elsewhere than in Winnipeg or environs, and by graduates in Arts of an approved Univ. residing elsewhere. The LL.D. is honorary.

In the B.Sc. Engin. courses a thesis is required in the 4th yr. A summer thesis may be presented for credit by students entering the 2nd, 3rd or 4th yr. 2 yrs.' service in an Architect's office following graduation (B.Arch.) will

qualify for licence to practise

DIPLOMAS. Pharmaceutical Chemistry (2 yrs.' course); Agriculture (3 yrs.); Home Economics (2 yrs.). In *Dentistry* the Univ. is the sole examining body in the province. The Univ. conducts examns. for admission to the Man. Assoc. of Graduate *Nurses*, to the practice of *Accountancy* and membership of the Inst. C.A. of Manitoba, to the practice of *Architecture* and membership of the Man. Association of Archts.; also qualifying examns. for the Man. Civil Service.

FEES. Tuition and examn. in Arts and Sc., \$80 p.a.; Engin. and Arch., \$135; Phm. Dipl. course, \$90; Degree course (4 yrs.), \$80, \$90, \$90, \$90; Med., 1st, 2nd, 3rd, and 4th yrs., \$225, 5th yr., \$100; Law, \$108. Licence to practise Med., \$100. Agr. Dipl. course, \$28; Degree course, \$40 (1st and 2nd yrs.) and \$65 (3rd and 4th yrs.); Home Economics, Degree course, \$40, \$40, \$65, \$65.

Scholarships for graduates: 2 Travelling Fellowships, each \$400, offered each yr.: one to a graduate in Arts, and, in alternate years, one in Science and one in Engineering, tenable at some other seat of learning.

RESIDENCE. Hostels at all affiliated Arts Colls. and Agr. Coll.

INTERCHANGE of teachers for a few days and conference annually with Univs. of N. Dakota, Sask., Alberta, and Brit. Col.

University Extension. (1) Winter Evening Business courses in Acctcy., Comml. Law, English, Pol. Econ., etc., given partly by members of regular Univ. staff. (2) Popular lectures in numerous centres. (3) Radio popular lectures, weekly. (4) Summer School. (5) A number of short courses at Man. Agric. Coll. in Agric. Eng., Live Stock, Hort., Beekeeping, Dairying, etc.

Publications. Calendars (July), Matrica., and the several faculties, free; Manitoban (students' paper), weekly; Annual Report; Historical Notes (1877-1917); Inaugural and Convocation Addresses; List of Faculty Publications.

## THE YEAR 1930-31

Benefactions. Bequest by the late Frances Emily Fenton, \$1000 for a survey of school children in Man. with respect to tuberculosis; from the United Farmers of Man., about \$2600 to create "The Roderick McKenzie Scholarship" in Agronomy; from the Mallinckroot Chem. Co., Montreal, \$25 for a cash prize in Phar. Chem.; from the publishers of the Man. Diamond Jubilee Memorial vol., a fund to establish an annual cash prize in Canadian Hist. in connexion with the ann. June High School examns. of the Man. Examn. Board.

New Buildings. A new Arts building is nearing completion on the permanent Ft. Garry site (cost approx. \$550,000). New Science building begun.

New Developments. The Cancer Relief and Research Inst. of Man. was created by Act of the Legislature in May 1930, to operate under a Board consisting of representatives of the Govt. and various city and provl. bodies incl. the Univ. A radium emanation plant has been set up in charge of a full-time physicist, with the Head of the Univ. Dept. of Physics acting as consulting physicist.

RESIGNATIONS AND RETIREMENTS. R. W. Murchie, Prof. of Econ. and Sociol. (Fac. of Agric. and Home Ec.), appt'd. Prof. at Univ. of Minnesota; R. F. Rorke (Med.); J. A. Gorrell (Med.); P. G. Bell (Ophthal.).

DEATHS. Prof. S. W. Prowse, Otolaryngol. and Dean of Fac. of Med.; D. A. MacDonald (Med.); Jasper Halpenny, Prof. Emer. in Surg.

Honorary Degrees. *LL.D.*—James Elliott, Prof. of Phil. and Psych., Wesley Coll., Winnipeg; James Emile Prendergast, Chief Justice, Court of Appeal of Man.; William John Spence, Registrar, Univ. of Man.

STUDENTS. Full-time: total, 2495, incl. 15 graduates. Part-time: total, 52. Summer School, 887; Extension, 401; extra-mural, 292, incl. 37 graduates.

DEGREES. B.A., 178; M.A., 19; B.Sc., 35; B.Sc. (H.Ec.), 22; B.Sc. (C.E.), 20; B.Sc. (E.E.), 26; B.Sc. (Med.), 2; M.Sc., 7; B.S.A., 12; B.Arch., 9; LL.B., 16; M.D., 49; Ph.D., 2; LL.D. (Hon.), 3.

DIPLOMAS. Agric., 9; H.Ec., 8; Pharmacy, 27.

#### MONTREAL UNIVERSITY

PATRON-S.E. Cardinal G. VAN ROSSUM.

CHANCELLOR-S.G. Mgr. P. BRUCHÉSI, D.Th., Archbishop of Montreal; ACTING—S.G. Mgr. GEORGES GAUTHIER, Archbishop of Tarona, Apostolic Administrator, O. L. d'H.

RECTOR-Mgr. V.-JOSEPH PIETTE, C. L. d'H.

PRESIDENT—Hon. E. L. BÉIQUE, O. L. d'H., LL.D.

PRESIDENT OF THE EXECUTIVE COMMITTEE—ERNEST DECARY.

VICE-RECTOR-Canon E. CHARTIER, M. ès A., L. ès L., D.Ph.

SECRETARY-GENERAL AND DIRECTOR OF EXTRA-MURAL RELATIONS-E. Montpetit, B.A., LL.D., K.C., D.S.P. Paris, membre de l'Ac. roy. lang. et litt. françaises de Belgique, Chev. O. Léop., O. L. d'H.

TREASURER-O. ARCHAMBAULT.

LIBRARIAN-A. FAUTEUX, B.A.

#### PROFESSORS, LECTURERS, ETC.

Agriculture, v. infra Affiliated Instns.

Anatomy, v. also Med. Histo-Delorme, L. N., M.D. Prof.

Masson, P., M.D. (A. Path.) Prof. Simard, L. C., M.D.

(A. Path.) Asst. Prof. Rivard, J. H., M.D. Asst, Prof. Delage, J.-B., M.D. Lectr.

Applied Science, v. infra Affiliated Instns.

Art. History of

Lagacé, J. B., M.A. Prof. [Emer. Prof. Astronomy

Choquette, Mgr. C. P., P.D., M.A.

Biology Prat, H.

Prof. Préfontaine, G., M.D. Lectr. Gardner, G., B.A., Lic. ès Sc.

Botany

Marie-Victorin, Frère, D.Sc. Prof.

Lectrs.:

Rousseau, J. B. A., L. ès Sc. Brunel, J., L. ès Sc.

Canadian Literature Chartier, Canon E., M.A., Lic. ès L. Paris, D.Phil., LL.D.

Chemistry, v. also infra Affiliated Instns.

Baril, G. H., M.D. (Org. C.) Prof. Asst. Profs.:

Nadeau, H., L. ès Sc. Paris Flahaut, J., L. ès Sc. Lille (Phys. C.).

Riou, P. (Applied C.).

Lectrs.:

Cartier, P., B.A., L. ès Sc.

Barré, R., B.A., D.Sc. Paris. Delorme, G., B.A., L. ès Sc.

Labarre, J., D. ès Sc. Paris (Biol. C.),

Classics

Chartier, Canon E., M. ès A., L. ès L. Paris (Gk.) Prof. Maurice, Abbé O., D.Th., L. ès L. Paris (Latin) Prof.

Lectr.

<sup>\*</sup> Dean of the Faculty.

Commerce, v. infra Affiliated Instns. Dentistry, v. infra Drawing

Ind. Lectr. Saint-Charles, J. Economics, v. infra Soc. Sciences, School of

Engineering, v. infra Affiliated Instins.

English Literature

Atherton, W., Ph.D., LL.D., Prof. D. ès L.

[Prof. French Literature Dombrowski, H., Ag. des L. Paris

Geography Tessier-Lavigne, Y., L.Sc. Soc. Ind. Lectr.

Geology, v. also infra Affiliated Instns.

Prof. Mailhot, A., B.A., I.C.

Historv

Groulx, L., M.A., D.Th.

(Canadian H.) Prof. Atherton, W., Ph.D., LL.D., D. (Canadian H.) Prof. Bruchési, J., LL.L., Lic.Sc. polit. Paris

> (Comml. and Gen. H.) Ind. Lectr.

Bernard, S. V.

(H. of Acadia) Lectr.

Iournalism, v. infra Social Sciences, School of

Law, v. infra

Mathematics

Léveillé, A., B.A. Lond. Prof. Beaupré, V. E., B.A., I.C.

Asst. Prof. Charron, D. Ind. Lectr.

Medicine, v. infra

Mineralogy, v. infra Affiliated Instns.

Modern Languages (German, Spanish, and Italian)

Jasmin, H., D.Ph., D.Th., L.E.S., Prof. M.A.

Music, v. infra Attached Instns. Pedagogy

Maurice, Abbé O., D.Péd.

(Primary) Prof.

Also for Secondary, the Profs. of the Fac.

Philosophy

Forest, C., Th.B., Ph.M. Prof.\* Pineault, Abbé L., D.Th., D.Ph., M.A.

(Logic and Social Law) Prof. Gauthier, O., D.Th., D.Phil. Prof. Jasmin, D., B.A., LL.D., D.Phil. (Natural Law) Prof.

Lamarche, A., D.Th., D.Phil. Prof. Vanier, G., B.A., LL.L.

(Natural Law) Prof. Hébert, Abbé E., D.Th., D.Phil.

(Social Law) Prof. Physics

Gendreau, E., L. ès Sc. Paris, M.D., D.Phil.

Lectrs.:

Demers, J., B.A. Wendling, A. V., L. ès Sc. Paris. Dufresne, O., B.A., M.D.

Physiology

Asselin, E.-G., M.D. Prof. Barbeau, A., M.D. Lectr.

Theology Profs.:

Allard, R., D.Th. Yelle, E., \* D.Th.

Sylvestre, Canon A., D.Th.

Ferland, A., D.Th. Duchein, F., D.Th. Boileau, J., D.Th. Duhamel, R., D.Th.

Gattet, B., D.Th. Charron, Y., D.Th.

Allard, A., D.Th. Lesieur, R., D.Th. McShane, G., D.Th.

\* Dean of the Faculty.

Maurault, O., D.Th. Legrand, HM., D.Th.	Roman L. Loranger, Hon. L., LL.D. Prof.
Pustienne, A., D.Th.	
Belcourt, E., D.Th.	Social Sciences, Economics
Ouellette, JB., D.Th. (Hebrew	Montpetit, E., B.A., LL.D., K.C. Prof.
and Gk.).	Medicine
Dubeau, A., D.Th. Desrosiers, JB., D.Th.	(for subjects of the first 2 yrs.— Anat., etc., v. supra)
Thibault, E., D.Th.	
Boudreau, H., D.Th.	Bacteriology Aubry, H., M.D. Asst. Prof.
Ouimet, A., D.Th. (Hebrew and	
Gk.).	Bertrand, A., M.D. Asst. Prof. Breton, JA., M.D. Lectr.
Bissonnette, R., D.Th.	Gauthier, PP., M.D. Lectr.
Veterinary Science, v. infra	÷,, ,,
Affiliated Instns.	Chemistry, Physiological Baril GH. M.D. Prof.
	150111, O. 111, 11115.
	Nadeau, H., M.D. Lectr.
Law	Contagious Diseases
Administrative and Munic. L.	Leduc, J., M.D. Prof.
Baudouin, G., LL.D. Prof.	Deontology
$Civil\ L.$	Parizeau, T., M.D. Prof.
Demers, Hon. L. P., LL.D., J. of	Dermatology and Syphilis
High Ct.* Prof.	Décarie, J., M.D. Prof.
Beaulieu, E., LL.D., K.C. Prof.	Archambault, G., M.D. Prof.
Civil Procedure	Marin, A., M.D. Asst. Prof.
Taschereau, R., LL.D., K.C. Prof.	Toupin, J. R., M.D. Asst. Prof.
Genest, R., LL.D. Prof.	Diseases of Children
	Lapierre, G., M.D. Asst. Prof.
Commercial and Marit. L.	Letondal, P., M.D. Asst. Prof.
Perrault, A., LL.D., K.C. Prof.	
Constitutional L.	Gynæcology Harwood, L. de L., M.D. Prof.*
Cousineau, Hon. P., LL.D., J. of	
High Ct. Prof.	
Criminal L.	Asst. Profs. :
Morin, L. J. S., LL.D., K.C. Prof.	Gérin-Lajoie, L., M.D.
Gendron, L., LL.L. Prof.	Trudeau, R., M.D.
Finance, Comml. & Indust. L.	Histology and Embryology
Perrault, A. Prof.	Van Campenhout, E., M.D. Prof.
Asst. Profs.:	Delage, JB., M.D. Lectr.
Gouin, L. M., LL.D.	History of Medicine
Gérin-Lajoie, A., LL.D.	Saint-Jacques, E., M.D. Prof.
Faribault, R., LL.L.	Hygiene
	Baudouin, J. A., M.D. Asst. Prof.
Internat. L. and Hist. of L.	Breton, R., M.D. Lectr.
Lemieux, Hon. R., LL.D., K.C. Prof.	Legal Medicine
Notarial Procedure	Derome, G. W., M.D. Prof.
Morin, V., LL.D. Prof.	Fontaine, R., M.D. Lectr.
1101. v., 1212.12.	101100110, 10, 11.12.

<sup>\*</sup> Dean of the Faculty.

Materia Medica, v. also Pharmacol. and Therap.	Pathology, v. also Med., Clin. Leger, A., M.D. Prof.
Fortier, L. E., M.D. Prof.	Asst. Profs.:
Bourgoin, J., M.D. Asst. Prof.	Boucher, R., M.D.
	Douclier, I., M.D.
Medical Physics	Pépin, J. R., M.D.
Gendreau, E., M.D. Prof.	De Guise, R., M.D.
Madiaina Climical	Blagdon, L., M.D. (Surg. Path.).
Medicine, Clinical	Dubé, E., M.D. (Surg. Path.).
Hébert, R., M.D. Hon. Prof.	Paré, A., M.D. (Surg. Path.).
Benoit, E. P., M.D. Prof.	Legrand, E., M.D. Lectr.
Lesage, A., M.D. Prof.	20823-0,,
Bruneau, T., M.D. Prof.	Pediatrics, v. also Orthopædics,
Léger, A., M.D. (also in Pathol.)	Clin.
Prof.	Lapierre, G., M.D. Asst. Prof.
Asst. Profs.:	-
	Pharmacology and Therapeutics
Dubé, E., M.D. (also in Pathol.).	Masson, D., M.D. Prof.
Lebel, H., M.D.	Fortier, L. E., M.D. Prof.
Robichaud, P., M.D.	
Hamel, G., M.D.	Pharmacy, v. infra
Rouleau, A., M.D.	Phthisiotherapy
Boucher, R., M.D. (also in Pathol.).	
De Guise, R., M.D. (also in	J 44- J 7 1
Pathol.).	Asst. Profs.:
ramon,	Verschelden, L., M.D.
Mental and Nervous Diseases	Mignault, G. E., M.D.
Bellefeuille, G. L. de, M.D. Prof.	Vidal, JA., M.D.
Noel, O., M.D. Asst. Prof. Larose, C., M.D. Asst. Prof.	Cholette, AM., M.D. Clin. Lectr.
Larose C. M.D. Asst. Prof.	011010000, 11, 1111, 11110, 011111 1101111
Legrand, E., M.D. Lectr.	Propædeutics
Legiand, D., M.D.	Hébert, R., M.D. Hon. Prof.
Moral Philosophy	
Pineault, Abbé L., D.Th., D.Ph.,	Radiology, etc.
M.A. Prof.	Panneton, J. E., M.D. Asst. Prof.
Montal and Morre	Pariseau, L., M.D. Asst. Prof.
Neurology, v. Mental and Nerv.	
Dis.	Surgery, Clinical, v. also Pathol.
Obstetrics	Marien, A., M.D. Prof.
De Cotret, E. A. R., M.D. Prof.	Saint-Jacques, E., M.D. Prof.
Langevin, S., M.D. Asst. Prof.	Rhéaume, P. Z., M.D. Prof.
	Dunesne, E., M.D. 11011, Asst. 1101.
Marion, D., M.D. Lectr.	Dufresne, E., M.D. Hon. Asst. Prof.
	Bourgeois, BG., M.D. (also in
Ophthalmology, Otology and	Bourgeois, BG., M.D. (also in Urol.)
Ophthalmology, Otology and Rhino-Laryngol.	Bourgeois, BG., M.D. (also in Urol.) Prof. Asst. Profs.:
Ophthalmology, Otology and Rhino-Laryngol. Roy, JN., M.D. Prof.	Bourgeois, BG., M.D. (also in Urol.) Prof. Asst. Profs.: Hingston, D., M.D.
Ophthalmology, Otology and Rhino-Laryngol. Roy, JN., M.D. Prof. Lasalle, A., M.D. Prof.	Bourgeois, BG., M.D. (also in Urol.) Prof. Asst. Profs.: Hingston, D., M.D. Demers, A., M.D.
Ophthalmology, Otology and Rhino-Laryngol. Roy, JN., M.D. Prof. Lasalle, A., M.D. Prof. Boulet, R., M.D. Hon. Asst. Prof.	Bourgeois, BG., M.D. (also in Urol.) Prof. Asst. Profs.: Hingston, D., M.D. Demers, A., M.D. Gagnon, A., M.D.
Ophthalmology, Otology and Rhino-Laryngol. Roy, JN., M.D. Prof. Lasalle, A., M.D. Prof.	Bourgeois, BG., M.D. (also in Urol.) Prof. Asst. Profs.: Hingston, D., M.D. Demers, A., M.D.
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Ophthalmology, Otology and Rhino-Laryngol.  Roy, JN., M.D. Prof. Lasalle, A., M.D. Prof. Boulet, R., M.D. Hon. Asst. Prof. Bousquet, JPE., M.D. Lectr.  Orthopædics, Clinical	Bourgeois, BG., M.D. (also in Urol.) Prof. Asst. Profs.: Hingston, D., M.D. Demers, A., M.D. Gagnon, A., M.D. Saint-Pierre, A., M.D. Derome, W., M.D.
Ophthalmology, Otology and Rhino-Laryngol. Roy, JN., M.D. Prof. Lasalle, A., M.D. Prof. Boulet, R., M.D. Hon. Asst. Prof. Bousquet, JPE., M.D. Lectr. Orthopædics, Clinical Ferron, A., M.D. Prof.	Bourgeois, BG., M.D. (also in Urol.) Prof. Asst. Profs.: Hingston, D., M.D. Demers, A., M.D. Gagnon, A., M.D. Saint-Pierre, A., M.D. Derome, W., M.D. Paré, A., M.D.
Ophthalmology, Otology and Rhino-Laryngol.  Roy, JN., M.D. Prof. Lasalle, A., M.D. Prof. Boulet, R., M.D. Hon. Asst. Prof. Bousquet, JPE., M.D. Lectr.  Orthopædics, Clinical Ferron, A., M.D. Prof. Dubé, E., M.D. Asst. Prof.	Bourgeois, BG., M.D. (also in Urol.) Prof. Asst. Profs.: Hingston, D., M.D. Demers, A., M.D. Gagnon, A., M.D. Saint-Pierre, A., M.D. Derome, W., M.D. Paré, A., M.D. Blagdon, L., M.D.
Ophthalmology, Otology and Rhino-Laryngol. Roy, JN., M.D. Prof. Lasalle, A., M.D. Prof. Boulet, R., M.D. Hon. Asst. Prof. Bousquet, JPE., M.D. Lectr. Orthopædics, Clinical Ferron, A., M.D. Prof.	Bourgeois, BG., M.D. (also in Urol.) Prof. Asst. Profs.: Hingston, D., M.D. Demers, A., M.D. Gagnon, A., M.D. Saint-Pierre, A., M.D. Derome, W., M.D. Paré, A., M.D.

Surgery, Operative	
Rhéaume, PZ., M.D.	Prof
Gagnon, A., M.D.	Asst. Prof
Toxicology	
Derome, W., M.D.	Asst. Prof.
Fontaine, R., M.D.	Lectr.
Urology, Clinical	
Bourgeois, BG., M.D.	Prof.
Fournier, N., M.D.	Asst. Prof.
	Asst. Prof.

## Dentistry

Dubeau, E., D.C.D.	Prof.*
Nolin, J., D.C.D.	Prof.
Charron, E., D.C.D.	Prof.
Duhamel, J. A., M.D.	Prof.
Dufresne, G. A. H., M.D.	Prof.
Marsan, C. R.	Prof.
Coté, T., D.C.D.	Prof.
8 Asst. Profs., 4 Lectrs.,	and 18
Clinicians and Demrs.	

## Pharmacy, School of

Contant, J., D.Phm.	Prof.
Laurence, AJ., L.Phm.	
SecDir. and	Prof.
Lanctôt, H., L.Phm.	Prof.
Vadboncœur, E., L.Phm.	Prof.
Quintin, AD., L.Phm.	Prof.
Boutin, J., L.Phm.	Prof.

Flahault, J., L. ès S. Lille (Chem.) Prof. Pilon, H., L.Phm. Prof. 5 Asst. Profs.

Social Sciences, School of v. also *supra* Geog., Hist. and Law

Social Philos., Econ. and Pol. Montpetit, E., K.C., LL.D. (Econ. and Pub. Fin.) Forest, R. P. C. (Soc. Philos.). Lamarche, R. P., M.A. (Soc. Philos.). Vanier, G., LL.L. (Comml. Law). Bruchési, J. (Foreign Pol.). Baudouin, J. A., M.D. (Hygiene). Vézina, F. (Manufactures). Tessier-Lavigne, Y. (Polit. Geog.). Saint-Pierre, A. Gouin, L.-M. (Indust. Law and Hist. of Econ.). Perrier, H. (Indust. Law). Doré, V. (Finance). Désy, A. (Indust. Law and Hist. of Econ.).

Journalism
Pelletier, G.
Fauteux, N. (Hist. of J.).
Rinfret, Hon. F.
Leduc, A. (Law of J.).

#### AFFILIATED INSTITUTIONS

AGRICULTURAL INSTITUTE at Oka, about 30 miles from Montreal, founded 1893 by the Trappist Fathers of Oka. *Director*, R. P. Leopold. 25 other staff and r3 Supts. of Practical Work for: Agr. Botany; Animal Biology and Hygiene; Animal Industry; Animal Pathol. and Bact.; Apiculture; Arboriculture; Aviculture; Buildings and Accounts; Chemistry, Geol. and Mineral; Cereals; Dairying; Entomol.; Food Preservation; Fruit and Flower Gardening; Kitchen Gardening; Large-scale Farming and Machinery; Maths.; Physics; Physiol.; Phytopathol. and Entomol.: Polit. Econ.; Soils; Rural Econ.

COMMERCE. École des Hautes Études Commerciales. Created by the Provincial Govt. in 1907. *Director*, Prof. H. Laureys. 11 other Profs., 4 Asst. Profs. and 16 Lectrs. for: Accountancy; Banking; Chemistry; Customs Legislation; Economics; English; French; Geography; Geog., Economic; German; History; Insurance; Italian; Law, Comml. and Indust.; Maths.; Philosophy; Physics; Publicity; Spanish.

<sup>\*</sup> Dean of the Faculty.

OPTOMETRY, SCHOOL OF. Director, A. Mignot.

Pure and Applied Science, including Engineering. The École Polytechnique, which was founded in 1874, is subsidized by the Govt. of the Province of Quebec and the principal Railways of the Dominion. Principal, A. Boyer. Director, A. Frigon. 9 Hon. Profs., 13 Profs., 7 Ast. Profs., and ro Lectrs. for: Architecture; Chemistry; Electricity; Electro-technics; Engineering—Civil, Elec., Mech., and Sanit.; Geology; Geometry; Graphical Statistics; Industrial Chem.; Industrial Legislation; Machine Drawing; Maths.; Mineral.; Physics; Public Works; Railways; Strength of Materials; Thermodynamics.

VETERINARY MEDICAL SCHOOL at Oka. President and Emer. Prof., D. Généreux, M.V. Director, Le R. P. Léopold. 16 other members of staff for: Anatomy; Aviculture; Bacteriology; Botany; Chemistry; Farriery; Histology; Materia Medica; Milk Inspection; Obstetrics; Parasitology; Pathology; Physiology; Serology; Zootechnics.

Enseignement Secondaire ou Classique. 15 Colleges for boys are affiliated to the Univ. under conditions providing for a 4 yrs.' High School course followed by a 4 yrs.' Coll. or Arts course, on the completion of which a student may qualify by examn. for a diploma admitting him to professional studies in the Univ. The Écoles d'enseignement secondaire pour les Jeunes Filles provide similar College courses for girls organized in French, English, and Special (Arts d'Agrément, Commerce, Pol. and Soc. Econ., Domestic Science) sections.

Institut Pédagogique pour les Femmes. Directress, Sister Sainte-Anne-Marie.

Institut Pédagogique St. Georges pour les Hommes, founded 1929. Director, Brother Martial-Paulin.

# ATTACHED INSTITUTIONS (ÉCOLES ANNEXÉES)

Conservatoire National de Musique. Director, E. Lapierre. 17 staff.

Institut Nazareth École de Musique. Directress, Sœur Marie-des-Neiges. 7 other teachers.

ÉCOLE DE MUSIQUE RELIGIEUSE (Schola Cantorum). Director, J.-N. Charbonneau. 21 other teachers.

École de Dessin.

Domestic Economy, 5 schools.

ÉCOLE DE TOURISME. Director, W. Du Cap. 7 teachers.

Conservatoire Lassalle (French elocution and oratory). Director, G. Landreau.

# INSTITUTIONS ATTACHED TO FACULTIES

School of Public Hygiene (École d'Hygiène Publique). Director of Studies, Dr. T. Parizeau.

School of Applied Hygiene (École d'Hygiène Sociale Appliquée). *Director*, Dr. J. Baudouin.

RADIUM INSTITUTE. Director, Dr. E. Gendreau. Founded, 1922, affiliated to the Radium Institute in Paris, 1923. Hospital attached.

#### GENERAL INFORMATION

The Univ. was incorporated under its present name by an Act of the Provl. Legislature on Feb. 14, 1920. For early history, see Yearbook for 1929. In 1920 Faculties of Pure Science and of Letters and a School of Social, Economical and Political Sciences were formed; in 1921 the School of Dental Surgery was made a separate Faculty, and the Conservatory of Music was affiliated; in 1922 the Faculty of Philosophy was created. A Radium Institute was created in 1923. The general administration is conducted by a Senate, Commissions of Admn. and Studies, Univ. Council and Exec. Committee. Endowments: \$4,000,000 from a national subscription (1920), \$1,000,000 from the Provl. Govt., and \$1,000,000 from the Seminary of St. Sulpice.

LIBRARY, 125,000 vols. Each Faculty and School has the necessary teaching collections and laboratories.

FACULTIES. Theol. (constituted by the Grand Seminary of St. Sulpice); Philosophy; Law; Med.; Letters; Sciences; Dental Science. Incorporated in the Univ. are Schools of Pharmacy, and Social, Econ. and Polit. Science.

Degrees and Diplomas. Courses in the incorporated and affild institus. include—a 4 yrs.' course in the Éc. Polyt. for the B. ès Sc. App.; 3 yrs. in the Éc. de Méd. Comp. for the D. en Méd. Vét.; 4 yrs. in the Éc. de Ch. Dent. for the D. en Ch.D.; 4 yrs. in the Éc. de Phm. for the B. en Ph. and D. en Ph.; 4 yrs. in Inst. Agric. d'Oka for the L. en Agr., B. en Agr. and D. en Sc. Agr.; 3 yrs. in the Éc. des H.É. Comm. for a L. en Sc. Com. and B. en Sc. Com.

Publications. Annuaire Général (June); La Revue Trimestrielle Canadienne; L'Actualité Économique.

# THE YEAR 1930-31

New Buildings in construction on the "Mont-Royal."

New Post. Extra-mural relations, Director, Edward Montpetit.

VISITS FROM OTHER UNIVS. Dr. H. Belot, Hd. of Radiology Dept. at the Hospital of Saint-Louis, Paris; M. E. Gilson, Prof. of Mediæval Philos., Univ. of Paris, Director of the Inst. of Mediæval Studies, Univ. of Toronto; Rev. Father Gillet, O.P. Maître génl. of the Dominicans; R. P. Chenn, Prof., Convent of Saulchoir, Belgium, Organizer of Mediæval Studies of the Dominicans at Ottawa; G. Lehr, Chief Engineer of French Air Force; Rev. Canon Jean Jean, Prof. of Applied Psychol., Inst. Catholique, Paris; G. F. Doriot, Vice-Principal, Graduate School of Business Administration, Harvard Univ.

VISITS TO OTHER UNIVS. Abbé L. Groulx, to the Sorbonne.

Deaths. Abbé S. Cain, prof. à la Fac. des arts; Honorable J. L. Perron, membre de la Commission d'administn. de l'Univ.; Dr. J. C. Bourgoin, prof. à la Fac. de méd.; Chanoine L. Pratte, prof. à la Fac. des arts; M. J. E. Dorvaux, p.s.s., ancien doyen de la Fac. de théol.; Dr. A. Tétreault, prof. à la Faculté de méd.; Rev. Père J. L. Morin, doyen de la Fac. des sci.

Honorary Degrees. LL.D.—Hon. Juge L. E. Panneton; M. Ernest Décary, N.P.; M. L. de G. Beaubien.

STUDENTS. Full-time: total, 3226, including 619 graduates. Part-time: total, 4612, including 501 graduates.

DEGREES. B.A., 326; L.Th., 11; B.Th., 7; B.D. Can., 14; LL.L., 14; LL.B., 22; M.D., 31; L. ès S., 2; L. es Lett., 2; B.C.D., 10; D.C.D., 8; D.M.V., 1; B.S.Ap., 17; B.S.A., 9; L.S.A., 6; L.S.Com., 19; B.S.C.C., 5; Ing. Chim., 1; Lic. Sc. soc. econ. et pol., 14; B. en Pharm., 7; B. en Opt., 3; Dipl. Journ., 7.

# MOUNT ALLISON UNIVERSITY, SACKVILLE, N.B.

CHAIRMAN OF THE BOARD OF REGENTS—R. C. TAIT, LL.D.

PRESIDENT OF THE SENATE—G. J. TRUEMAN, Ph.D. (Col.), M.A.

SECRETARY AND LIBRARIAN—Prof. F. W. W. DES BARRES, B.A., D.D.

REGISTRAR—Prof. W. M. TWEEDIE, M.A.

PROFESSORS, LECTURERS, ETC. Biology [Prof. Trueman, A. W., B.A. Ox. Asst. Prof. Fraser, R., B.S. Guelph, M.A. Tor. Fawcett, Miss M., B.A. Instr. I Asst. I Asst. French[Prof. Chemistry Trethewey, W. H., M.A. Tor. Bigelow, H. E., Ph.D. Harv. Prof. Guay, R. (Fr. Conversation) Instr. Cuthbertson, H. C., Ph.D. McG. 2 Assts. Asst. Prof. German 3 Assts. Colby, C. C., M.A. Harv. Prof. Classics [Wood Prof. History [Prof. Cohoon, J. W., Ph.D. Princeton Des Barres, F. W. W., B.A., D.D. Instr. Wall, Georgie M., B.A. Homiletics Commerce and Economics Mackinnon, Clarence, M.A., LL.D. Guy, N. M., M.A. Harv. (on leave) Dal. Lectr. Joseph L. Black Prof. Household Science [Hd. of Dept. Tucker, Rev. H., Ph.D. Prof. Runciman, Doris, B.Sc. Col. 2 Assts. 2 Teachers, I Instr. Contracts Mathematics Prof. Richard, E. René, B.A. St. J., Hunton, S. W., B.A. Lond., M.A. Lectr. LL.B. Dal. McEwen, W. H., M.A. Sask., Ph.D. Education □Prof. Wisc. Asst. Prof. Trueman, G. J., M.A., Ph.D. Col. New Testament Exegesis Shaw, Ll. W. Lectr. Brecken, E. R., M.A., D.D. Prof. Flemington, Rev. W. T. R., M.A., Philosophy [Massey Prof. B.Pæd. Tor. Lectr. Krug, C. A., M.A., B.D. Tor. Engineering Physics McKiel, H. W., B.A., B.Sc. Qu. MacGregor, D. G., M.A. Ox. Prof. Prof. (Mech. E.) Nickerson, J. L., M.A. Princet. West, F. L., M.A., B.Sc. McG. Prof. Asst. Prof. MacLachlan, I., B.Sc. Qu. Green, C. T., B.A. Instr. Asst. Prof. 2 Assts. English Lang. and Lit.

Allison Prof.

Sociology

Pickard, Jean C., B.A.

Instr.

Tweedie, W. M., M.A. Lond.

#### GENERAL INFORMATION

Mount Allison University was founded as a degree-giving body in 1858 under the name "Mt. Allison Wesleyan College." For early history, see *Yearbook*, 1929.

The Union Church of Canada controls the administration on strictly non-sectarian principles; many students belong to other religious denominations.

LIBRARY, 30,000 vols. Engineering Workshors with gasoline engine, etc. FACULTIES. Arts, Sci., Sch. of Appl. Sci., Dept. of Household Sci.

Degree Courses. 3 yrs., B.Mus.; 4 yrs. (from "Junior" Matricn.), B.A., B.Sc. "Senior Matricn." Certifs. (e.g. N.S. Provl. Educn. Dept., grade A) admit to 2nd yr. of B.A. or B.Sc. course; Prince of Wales Coll. High Honour Diploma to 3rd yr.

HIGHER DEGREES. Open to B.A. of r yr.'s standing, M.A.; to B.Sc. of r yr.'s standing, M.Sc.; Honorary, LL.D., D.C.L.

CERTIFICATES. Appl. Sci., 2 yrs.' course may be taken as part of 3rd and 4th yrs. of B.A., or B.Sc. (see p. 402); Finance and Com., 2 yrs.; Secretarial, 4 yrs.

FEES, tuition and registration, annual: Arts, \$130 for 5 subjects; Engin., \$130-\$160.

RESIDENCE. Accommodation in the Univ. for 220 men and 60 women.

Publications. Calendar (July); Argosy (students'), weekly, and Mt. Allison Record, monthly.

# THE YEAR 1930-31

BENEFACTIONS. \$50,000.

 $N_{\text{EW}}$  Buildings. New buildings for Chemistry and Biology (\$250,000); Central Heating Plant.

CHANGES IN STAFF. R. B. Liddy resigned.

Honorary Degrees. LL.D.—Allison Hart Borden, Frank Richard Heartz Students. Full-time, 451. Extens. Dept., 80; Summer School, 230.

DEGREES. B.A., 40; B.Sc., 12; B.Sc. (Househ. Sci.), 4.

# UNIVERSITY OF NEW BRUNSWICK, FREDERICTON

VISITOR ON BEHALF OF H.M. THE KING—THE LIEUT.-GOVERNOR OF NEW BRUNSWICK.

PRESIDENT—C. C. JONES, M.A., Ph.D., LL.D.

REGISTRAR-J. W. SEARS, B.A. Ox.

#### PROFESSORS AND LECTURERS

[Prof. Argue, C. W., B.A., M.Sc. McGill Chemistry Toole, F. J., Ph.D. McGill, M.Sc. Prof. Wright, R. H., Ph.D. McGill, B.A. Asst. Prof. Classics and Anc. Hist. [Prof. Cattley, R. E. D., B.A. Camb. Economics and Politics Keirstead, B. S., B.A. Ox. Prof. Engineering Turner, E. O., S.B. Mass. I. Tech. (Civil E.) Prof. Stephens, J., M.A., M.A.I. Dub., M.I.C.E.I., D.Sc. (Mech. E. and Drawing) Prof. Engineering, Electrical Baird, A. F., M.Sc. Prof. English and Mod. Hist. McPherson, M., M.A. Edin. Prof. Forestry Gibson, J. Miles, B.Sc. Prof. Flieger, B. W., B.Sc. Asst. Prof. French and German

Geology [Prof. Wright, W. J., Ph.D. Yale, B.A. Perry, S. C., B.A. Asst. Prof. Law Lecturers: Richards, C. D., B.A. (Contracts and Real

(Contracts and Real Property). Hughes, P. J., B.A.

(Torts, Crimes).

Winslow, J. J. F., B.A. (Procedure).

At St. John: Hazen, Sir Douglas, C.J.,

K.C.M.G., B.A., LL.D. Dean of Faculty.

McInerney, H. O., M.A., B.C.L. Prof.

15 Part-time Lectrs.

Mathematics
he President

The President Prof.

Jones, W. G., B.Sc. Asst. Prof.

Philosophy and Education
Keirstead, W. C., Ph.D. Chic.,
M.A. Prof.

Physics

Priestman, B., B.A. Camb., M.Sc., Ph.D. McGill Prof.

#### GENERAL INFORMATION

Pugh, R. W. B., B.A. Ox.

The "College of New Brunswick" was incorporated in 1800 by Provincial Charter, re-incorporated in 1828 by Royal Charter as "King's College," and merged in 1859 in the Univ. of N.B. established in that year. A Faculty of Law was established in 1923 in St. John, taking over, with some changes, the work of the former King's College Law School. The Provincial Govt. appoints

Prof.

the President and a majority of the governing body, called the Senate, of which the Chief Supt. of Education for the Province is *ex officio* a member. The annual grant from Provincial revenues is \$25,000.

LIBRARY: 14,000 vols. Museums: Natural History (rich in birds). LABORATORIES: Bot., Chem., Engin., Geol., Phys., Psych. Observatory: Telescope with 6\* clear aperture.

DEPARTMENTS. Arts, Applied Science (Engineering and Forestry), Law.

DEGREE COURSES. 4 yrs. (from "Junior" Matricn.), B.A., B.Sc. (in Pure Science, Engin. or Forestry). 3 yrs., B.C.L. The "Senior" Matricn. (or equivalent) Certif. admits to the 2nd year. The first 2 yrs. in Engin. are arranged to suit candidates for licences as Land Surveyors.

HIGHER DEGREES. Open to B.A. of 2 yrs.' standing, M.A.; to B.Sc. in Pure Science of 2 yrs.', in Engin. or For. of 3 yrs.' standing, M.Sc.; to B.A. of 6 yrs.' standing, B.C.L.; to B.C.L. of 5 yrs.' standing, D.C.L.; D.Litt., D.Sc., LL.D. (Hon.).

FEES, tuition, annual: Arts, \$86; Engin. or Forestry, \$120.

Publication. Calendar (Tanuary): Brunswickan (Students' weekly).

### THE YEAR 1930-31

Benefactions. \$3000, legacy, Mrs. Busteed, Montreal, for scholarship.

New Posts. Chair of Economics and Politics.

OTHER DEVELOPMENTS. Summer School, July 7-Aug. 14.

DEATH. Dr. A. Cameron, for 18 yrs. Prof. of Chemistry.

STUDENTS. Full-time: total, Arts and Pure Science, 355; Law, 7.

DEGREES. B.A., 28; M.A., 5; B.Sc. (Civil Engin.), 5; B.Sc. (Elec. Engin.), 11; B.Sc. (Forestry), 9; B.C.L., 2.

# UNIVERSITY OF OTTAWA

Apostolic Chancellor—His Excellency Guillaume Forbes, D.D., Archbishop of Ottawa.

RECTOR-G. MARCHAND, O.M.I.

SECRETARY-F. X. MARCOTTE, O.M.I.

Bursar-L. Bouvet, O.M.I.

Prefect of Studies—J. Gravel, O.M.I.

Prefect of Discipline—J. Hébert, O.M.I.

## **PROFESSORS**

[cl = Canon Law, co = Commerce, e = English, ec = Economics, el = Elocution, f = French, g = Greek, h = History, l = Latin, m = Mathematics, mu = Music, p = Philosophy, pe = Pedagogy, r = Religious Knowledge, s = Sciences, t = Theology.]

Arvisais, A.—f. Barabé, P. H., B.A., L.Th., B.C.L. ---el. Beaulieu, J.—f, e, m, mu. Bergevin, J. L., L.Ph., M.A.—l, r. Betournay, A., L.Ph., D.D.—t. Bouvet, L., B.A. Bradley, F. H., M.A., D.Ph., L.C.L.—e, h, r. Brunet, A., L.Ph., L.Th.—l, r. Cadieux, J., B.A. Caron, A., B.A., L.Ph., D.D., D.C.L.—t. Caron, D., B.L., L.Ph., L.Th.—e. Cary, A., B.A., L.Ph.—e, ec, r. Chartrand, J., B.Th.—e. Cornellier, L. P., B.A., D.Ph., D.D., B.C.L.—p, g. Deschamps, T.—e, f, r. Deschatelets, L., L.Ph., D.D., L.C.L.—t. Desnoyers, A., B.L., D.Ph., D.D., B.C.L.—cl, t. Dubé, H., D.Ph., D.Sc., L.Th. m, s. Dubois, N.—l, r. Fusey, A., L.Ph.—f, r. Gendron, R., B.A., L.Ph., L.Th., B.C.L.

Godbout, A., B.A., L.Ph.—l, m. Gravel, J., B.A., L.Ph., B.Th. Guertin, A., B.L.—f, h. Guibord, R., B.A., L.Ph.-f, l, r. Haves, H.—e, f. Hébert, J., M.A., L.Ph., L.Th.—l. Houle, G. Jasmin, A., B.L., D.Ph., L.Th.—p. Julien, G. O., M.A., L.Ph.—m. L'Abbé, J., B.L., B.Ph., L.Th., B.C.L.—h, r. Laberge, W.-f, l. Lajeunesse, A., M.A., L.Ph., D.D. -s, pe. Lambert, L.—f, h. Lamoureux, R., B.A., B.Th.—pe. Latour, C., L.Ph., L.Th., L.C.L.— Latulipe, E., B.A.—co, g. Lavigne, R., L.Ph., B.Th.—e, f, m. Lebel, M. W., B.A., L.Ph., M.D., C.M., L.M.C.C.—s. Leblanc, R., D.Ph., B.Th.—p. Leclerc, A., M.A., L.Litt., L.Ph., L.Th.—f, 1. Legault, R. Leger, R.—e. Lejeune, L., D.Litt.

Logan, J.—p. Maillette, G., L.Ph., L.Th.—m, s. Marchand, G., D.Ph., D.D., B.C.L. Marcotte, F. X., D.Ph., D.D., B.C.L.-e, h. 1. Maroney, J.—m. Martel, G. E., L.Ph. Morisset, A., L.C.L.—e. Paquette, A.—f, h. Pelletier, A., M.A.—g. Pelletier, L. P., L.Ph., L.Th.—e. Pelletier, S., B.L., D.Ph., B.Th.—l. Pigeon, I., B.A., B.C.L. Poulet, D., L.Ph., D.Th., L.H.S. Poupart, H., D.Ph., D.D.—s. Rajotte, A., B.A., L.Ph. Renaud, E., B.A., L.Ph.-r, s.

Richard, E., B.Ph., L.Th.—s. Rousseau, J., D.Ph., D.Th., D.C.L. -cl, p. Royal, E., M.A., L.Litt., L.Ph., D.D.—f, g. Saint-Denis, H., B.A., D.Ph., D.D., B.Ped.—e, g, l. Saint-Denis, R., B.A., L.Ph.—pe. Sauvé, G., B.A., D.Ph., L.Th., L.C.L.—ec, p. Scheffer, P., D.Ph., D.D., B.C.L. Senecal, R.—co. Simard, G., D.Ph., D.D.—h, p. Thivierge, E., B.Ph., L.Th.—h, r. Verville, E., L.Ph.—h, mu. Voyer, O.—f, l. Walker, J. V.-m. Watson, E., B.A., L.Ph.—pe.

#### GENERAL INFORMATION

The "College of Bytown," incorporated in 1849, changed its name in 1861 to "College of Ottawa," and became in 1866 the Univ. of Ottawa with power to grant degrees. By a papal brief dated Feb. 5, 1889, it was accorded the status of a Catholic University. The Univ. is conducted by the Oblate Fathers of Mary Immaculate.

AFFILIATED INSTITUTIONS. 4 Convents, a Seminary and a School at Ottawa; St. Joseph Academy at Hawkesbury, Ont.; College Thevenet, Gravelbourg, Sask.; Sacred Heart College, Regina, Sask.; College Mathieu, Gravelbourg, Sask.; Juniorate of St. John the Apostle, Edmonton, Alta.; St. Theresa Academy, Medicine Hat, Alta.; Convent of the Sisters of Providence of St. Brieux, Prad'homme, Sask.; Training Schools for Nurses at Ottawa General Hospital; Misericordia Hospital, Ottawa; Hotel Dieu Hosp., Kingston, Ont. and Sudbury Hosp., Ont.

LIBRARY, 25,000 vols. The Parliament Library, to which students have access, has 300,000 vols. Museums: In the Univ.—Geol.; access also to Geol. Survey Dept. Museum. The Dominion Observatory and Canadian Fisheries Museum are located in Ottawa. Laboratories: Chem., Phys., Biol.

Degrees, etc. B.A., M.A., B.L. (Lit.), B.Ph., B.Th., D.D., LL.D. (Hon.), L.Ph., D.Ph., L.Th., B.C.L. (Canon Law), L.C.L., D.C.L., D.Sc., L.Litt., D.Litt. The Arts course leading to the B.A. or B.L. covers 4 yrs., the work of the Fifth to the Eighth "Forms," that of the first 4 Forms being preparatory to matrica. Extra-mural students may appear for examn. without attending classes in the Univ. for more than 1 yr. The B.Th. and the L.Th. involve respectively 2 and 3 yrs.' study of Theology after the completion of a classical course; the B.Ph. and the L.Ph. respectively 3 and 4 yrs.' study after matrica. Marks assigned for the exercises of students are read in public once a month, and monthly reports are sent to parents.

FEES. For Tuition and Board Residence per year, \$300. Degrees from \$5 to \$75.

RESIDENCE. Students whose homes are not in Ottawa are required to live in the Univ. building, where they are subject to strict discipline—e.g. no book or newspaper may be introduced without having been previously examined and approved of by the Prefect of Discipline.

# THE YEAR 1930-31

Number of Students. Total, not incl. summer courses, extension courses, and affiliated institutions, 1030.

HONORARY DEGREES. LL.D., two.

DEGREES: B.A., 27; M.A., 3; B.L. (Lit.), 0; D.Lit., 0; B.Ph., 32; L.Ph., 20; D.Ph., 2; B.Th., 11; L. Th., 6; B.C.L. (Bach. of Canon Law), 6; L.C.L., 2; D.C.L. (Dr. of Canon Law), 2; D.D., 0.

# QUEEN'S UNIVERSITY, KINGSTON, ONTARIO

CHANCELLOR-JAMES RICHARDSON, B.A., LL.D.

PRINCIPAL AND VICE-CHANCELLOR—WILLIAM HAMILTON FYFE, M.A. Ox.

RECTOR-O. D. SKELTON, M.A., Ph.D.

VICE-PRINCIPAL AND TREASURER—W. E. McNeill, M.A., Ph.D.

REGISTRAR-ALICE KING.

LIBRARIAN-E. C. KYTE.

# PROFESSORS, LECTURERS, ETC.

Accounting Walker, C. E., C.A. Assoc. Prof. Smails, R. G. H., A.C.A. Assoc. Prof. Anatomy, v. also Med.-Obs., Matheson, D. C., M.B. Prof. 3 Fellows. Banking, v. Pol. Econ. Biology MacClement, W. T., D.Sc. Armour Inst., M.A. Allan Prof. Earl, R. O., M.Sc. Chic., B.A., Ph.D. Chic. Klugh, A. B., M.A., Ph.D. Corn. Assoc. Prof. Krotkov, G., B.S.A. Prag. Lectr. Chemistry, v. also Engin. [Prof. Neish, A. C., M.A., Ph.D. Col. McRae, J. A., M.A., Ph.D., F.I.C. Frost, G. B., B.A. Tor., Ph.D. Cal. Munro, L. A., M.A. Dal., Ph.D. McG. Dorrance, R. L., B.A. Tor.

Asst. Prof.

Munro, L. A., M.A. Dal., Ph.D.
McG. Asst. Prof.

Dorrance, R. L., B.A. Tor.
Asst. Prof.

Iz Tutors.

Chem. E.)

Wilgar, W. P., B.Sc. (Civil E.) Prof.

Malcolm, L., M.A., B.Sc. (Munic.
E.)

Jemmett, D. M., M.A., B.Sc. (El. E.)

Prof.

Ellis, D. S., M.A., B.Sc. (Civil E.)

Prof.

Ellis, D. S., M.A., B.Sc. (Civil E.)

Prof.

Rutledge, L. T., B.A.Sc. (Mech.E.)

Assoc. Prof.

Classics Callander, T., M.A. Aberd. and Ox. (Greek) Prof. Law, L. E., B.A. Lond. and Ox. Asst. Prof. Jolliffe, R. O., Ph.D. Chic. (Latin) Prof. Tracy, H., B.A., Ph.D. Prof. Macdonnell, Mary L., M.A. (Latin) Lectr. Lectr. Showman, W. H., M.A. Commerce, v. also Accounting Curtis, C. A., B.A. Tor., Ph.D. Chic. Assoc. Prof. Economics, v. Polit. and Econ. Sc. Engineering, v. also Mining E. Macphail, A. J., C.M.G., B.Sc. Prof. (General E.) Arkley, L. M., M.Sc. (Mech. E.) Goodwin, L. F., Ph.D. Heid., A.C.G.I., F.I.C. (Indust. and Prof. Chem. E.) Wilgar, W. P., B.Sc. (Civil E.) Prof. Malcolm, L., M.A., B.Sc. (Munic. Prof. Jemmett, D. M., M.A., B.Sc. Prof. Ellis, D. S., M.A., B.Sc. (Civil E.) Rutledge, L. T., B.A.Sc. (Mech.E.)

Harrison, W. E. C., M.A. Lond. Jackson, A., B.Sc. (Draughting) Assoc. Prof. Lectr. I Fellow, 3 Tutors. Asst. Prof. Morgan, S. C., B.Sc. 9 Tutors, 7 Demrs., 3 Instrs. Italian, v. Romance Lang. MathematicsProf. English Matheson, J., M.A., Dean of the Clarke, G. H., M.A. McM., D.Litt. Faculty of Arts Prof. Roy, J. A., M.A. Edin. Prof. Gummer, C. F., M.A. Ox., Ph.D. Alexander, H., M.A. Liv. Chic. Assoc. Prof. Miller, Norman, Ph.D. Harv., M.A. Gordon, Miss W., M.A. Asst. Prof. Irvine, M., B.A. (on leave) Lectr. Johnston, K. P., M.A., B.Sc. Duthie, E. E., M.A. Asst. Prof. MacOdrum, M. M., Ph.D. Glas. Edgett, G. L., M.A. Mt. All., Ph.D. Lectr. Ill. Lectr. 6 Readers, 6 Tutors. Lectr. Stewart, J. D. [Prof. French Lectr. Campbell, P. G. C., M.A. Ox. Newlands, Mrs. Etta, M.A. Instr. Tirol, M., L. ès L. Paris, Ph.D. 8 Tutors. Assoc. Prof. Lond., O.A. Medicine, v. infra Conacher, W. M., B.A. Lond., Metallurgy D. ès L. Montr. Assoc. Prof. MacKay, G. J., B.Sc. Prof. Walpole, H., B.A. Camb. Lectr. Carson, O. A., M.A. Col., B.Sc. Instr. McConnell, Mme. B. S. Asst. Prof. Prof. Lectr. Geology . . . . . . Baker, M. B., B.A., B.Sc., F.G.S.A. Mineralogy Bruce, E. L., M.A., Ph.D. Col. Hawley, J. E., M.A. Prof. Miller Memorial Prof. Mining Engineering Rose, B., Ph.D. Yale, B.Sc. Graham, S. N., B.Sc. Prof. Assoc. Prof. Philosophy German Humphrey, Geo., B.A. Ox., Ph.D. Prof. Prof. Laird, Hilda C., B.A. (Dean of Vlastos, G., Ph.D. Harv. Lectr. Asst. Prof. Women) I Tutor. Hebrew, v. Semitic Langs. [Prof. Physics Clark, A. L., B.Sc. W.P.I., Ph.D. History Dean of Fac. of Appl. Sc. McArthur, D. A., M.A. Baker, W. C., M.A. (Expl. P.) Prof. Prof. of H. and Douglas Gray, J. A., D.Sc. Manc. Prof. of Canadian and Chown Research Prof. Colonial H. Robertson, J. K., M.A. Tor. Prof. Prince, A. E., M.A. Ox. and Manc., Flammer, E., B.Sc. Calif., Ph.D. B.Litt. (English H.) Harv. Assoc. Prof. Trotter, R., B.A. Yale, M.A., Ph.D. Lecturers: Assoc. Prof. Watson, E. E., M.Sc. McG. Harv. Rogers, N. M., M.A., B.Litt., Sargent, B. W., M.A. Cave, H. M., M.A. B.C.L. (also in Econ.)

Assoc. Prof.

2 Tutors.

Physiology Med. Jurispr. and Toxicology Melvin, G. S., M.D. Aberd. Prof. Gardiner, R. J., M.D., C.M. Lectr. Ettinger, G. H., B.A., M.D., C.M. Rigney, T. J., B.A., K.C. Asst. Prof. Medicine and Clin. Med. I Fellow. Connell, W. T., M.D., M.R.C.S. Eng., L.R.C.P. Lond. Political and Econ. Science Gibson, W., M.D. Mackintosh, W. A., Ph.D. Harv., (Med.) Assoc. Prof. Macdonald Prof. MacCallum, E. C. D., M.D., C.M. Rogers, N. M., M.A. (also in Hist.) (Med.) Assoc. Prof. McG. Assoc. Prof. Third, J. R., B.A., M.D. Asst. Prof. Knox, F. A. Lectr. Hopkins, B. H., M.B. Tor. Lectr. 3 Tutors in Econ. and Banking. Macdonnell, P. M., B.A., M.D. Romance Lang. and Lit., v. also Clin. Asst. & Historian. French Bird, G. H., M.B. Clin, Asst. Brovedani, J. H., D. ès L. Rennes Obstetrics (Span. & Ital.) Prof. Mylks, G. W., M.D. Prof. Lanigan, J., B.S. Harv. Instr. O'Connor, F. J., M.D., C.M. Semitic Langs. and Lit. Lectr. Jordan, W. G., B.A. Lond., D.D. Huyck, P. H., M.D. Clin. Asst. Prof. Emer. Ophth., Ot., Laryng. and Rhin. Kent, H. A., M.A., D.D. (Hebrew) Cays, F. A., M.D., C.M. Prof. Assoc. Prof. Spanish, v. Romance Connell, H. C., B.A., M.D., C.M. Clin. Asst. Folger, H. P., B.A., M.D., C.M. Medicine Clin. Asst. (for subjects of the first 2 yrs.-Pathology Anat., etc., v. supra) Miller, J., B.Sc., M.D. Edin., D.Sc. Anæsthetics, v. Surg. Birm. Hay, W. D., M.A., M.D., C.M. Bacteriology (Lectr. in Clin. Microscopy) Reed, G. B., M.A., B.Sc., Ph.D. Asst. Prof. Harv. Prof. Pediatrics [Prof. Orr, J. H., M.D., C.M. Asst. Prof. MacGregor, R. R., M.D., C.M. Electro-Therapy, v. Mat. Med. PhysiologyEmbryology [Asst. Prof. Melvin, G. S., M.D. Aberd. Ettinger, G. H., B.A., M.D. Ettinger, G. H., B.A., M.D. Gynæcology Asst. Prof. Preventive Medicine Mylks, G. W., M.D. Prof. Wyllie, J., M.B., Ch.B., B.Sc. Morison, M. J., M.D. Lectr. Glas., D.P.H. Camb. Materia Med. Arthur R. Elliott Prof. Gibson, T., M.D., M.A., M.B. Psychiatry Edin. Prof. Prof. P., M.A., M.D., Quigley, J. Eng., M.R.C.S. L.R.C.P. Surgery Lond. (Lectr. in Electro-J., M.Ch. Austin, L. Camb., F.R.C.S. Eng. (Clin. S.) Prof.

Asst. Prof.

Therapy)

Etherington, F., C.M.G., M.D.
Prof. and Dean.
Gardiner, R. J., M.D., C.M.
Asst. Prof.
Keyes, S. J., M.D., C.M. (Lectr.
in Anæsthetics) Asst. Prof

Sparks, J. F., B.A., M.D., C.M. (S. and Appl. Anat.) Assoc. Prof.
Bogart, I. G., M.D., C.M.
Assoc. Prof.
X-ray and Physiotheraby

Jones, W. A., M.D. West Asst. Prof.

#### AFFILIATED COLLEGE

QUEEN'S THEOLOGICAL COLLEGE. Principal and Prof. of Old Test. Criticism and Exegesis, H. A. Kent, M.A., D.D. 5 other Profs.

#### GENERAL INFORMATION

Queen's College, Kingston, was founded by Royal Charter in 1841. For early history, see Yearbook for 1929.

The administration is vested in a Board of Trustees, composed of Chancellor, Principal and Rector, and representatives of the College, the Faculties, Graduates and Benefactors.

LIBRARY, 130,000 vols. (valuable Canadian Historical Section). The Douglas Library: 85,000 vols. and pamphlets, including many scarce books and early eds. of valuable historical works. The Reading-room has over 4000 vols. on open shelves, and 800 periodicals. The Lorne Pierce collection of modern Canadiana is among the best in existence, and the Shortt-Haydon collection of pictures and portraits of Canadian interest is probably unexcelled. MUSEUMS: Herbarium (35,000 spec.), Geol., Mineral., Ethnol. (rich N. American Stone Age collection). LABORATORIES, including important School of Mines buildings: Biol. (accommodating 220 students), Chem., Geol., Physics, Engin., Mining, Metall., Mineral. Observatory with 6" telescope. Hospls. available for clinics, 2 general, 7 for insane. Easy access to important locomotive shops, dry docks, canal locks, water-power stations, mines, metallurgical works. Exceptional natural facilities for Geol. study.

FACULTIES. Arts, Applied Science, Medicine. The Senate includes representatives of the Theol. College also.

Degree Courses. Four years, B.A., B.Com., B.Sc. (in Engin.—Civ., Mech., Elec., Mining and Metall., Chem. and Metall.—Analyt. and Applied Chem., Mineral. and Geol., or Physics); 6 yrs., M.D., C.M.

Combined courses: 6 yrs., B.A. and B.Sc., B.A. and B.D.

For teachers in schools and others unable to pursue the full degree courses in Arts at the Univ. extra-mural instruction is provided by correspondence. All candidates for degrees must take in residence 9 of the 19 courses required for the Pass degree. Some of these may be covered at the Summer School of 7 weeks during July and Aug., but the examns. written are the regular Sept. examns. set for all students.

Banking Courses leading to diplomas of Associate or Fellow of the Canadian Banking Associate. Tuition by correspondence to members of Canadian Banks.

By agreement with the Can. Institute of Chartered Accountants, Toronto, the tuition of their course, leading to the C.A. certif., is given by the Univ.

Higher Degrees. M.A. (1 yr. graduate course); M.Sc. (1 yr. course and 2 yrs.) professional practice); Ph.D. (3 yrs.); D.Sc. (2 or 3 yrs.); D.P.H. (Doctor of Pub. Health); B.D. (3 yrs.' course or its equivalent); Honorary LL.D., D.D.

DIPLOMAS. Testamur in Theology (3 yrs.' course).

FEES (Class and Examn.) in Arts, \$70 p.a.; Science, \$130.

Scholarships and Fellowships. There are 38 scholarships for students of the Univ., varying in value from \$25 to \$150 p.a. The Sir James Aikins Fellowship in Canadian Hist, \$500, open to distinguished students for further work in this subject. George Christian Hoffmann Fellowships (1) for Patholog. research, \$1000, (2) for further study in Surg., \$750, both to enable holder to study in some inst. or Univ. in Europe or U.S.A. approved by Senate. For 4 Arts Research Fellowships and the Milton Hersey Fellowship in Chem. v. App. XXIII.

RESIDENCE with rooms for 100 women and refectory accommodation for 180. Board and lodging, \$8.25 to \$9.00 a week. The Students' Union provides meals for men at \$6 to \$8 a week; accommodates about 200.

UNIVERSITY EXTENSION. See above—Degree Courses. A course of weekly lectures is open to the public, and lectures are given by members of the staff at various centres in Ontario.

Publications. Calendars (by Faculties); Queen's Quarterly; Queen's Univ. Journal.

# THE YEAR 1930-31

Benefactions. \$150,000 from the City of Kingston for buildings and improvements; a Trust Fund of \$20,000 from Dr. Zealand; from Mr. C. Walter Nichols, \$2000 for a Scholarship in the Dept. of Chemistry.

New Buildings. A new gymnasium, and a new building to accommodate the Geol. and Mineral. Depts. (Miller Hall); complete renovation of the Arts Building and Ontario Hall; a new wing added to Nicol Hall.

CHANGES IN REGULATIONS. The new Pass Course in Arts requiring 20 courses for a degree introduced; all first yr. women students under 25 not resident in the city of Kingston required to live in Residence; all women not living in Residence or in their own homes required to live in supervised boarding-houses; general examn. in Hons. Courses covering 4 yrs.' work in Arts introduced in 1931.

RETIREMENT. Dr. Edward Ryan, since 1905 Superintendent of the Rockwood Hospital; Mr. A. H. Carr, Director of Extension Courses.

Honorary Degrees. D.D.—Rt. Rev. Edmund Henry Oliver, Nathaniel Mickiem. LL.D.—Robert John McDonald, William Hamilton Fyfe, Hon. George Howard Ferguson, Lieut.-Col. Reuben Wells Leonard, the Most Rev. Michael Joseph O'Brien, General Sir Arthur William Currie, Robert Charles Wallace, Dr. Louis Stephen St. Laurent, Alfred Granville Burrows, Hans Theodore Güssow, Charles William Jeffreys, Thomas Clarence Routley.

STUDENTS. Full-time: Arts, 960; Science, 464; Medicine, 302: total, 1726. Summer School and Banking and Accounting, 1697.

Degrees. M.A., 20; B.A. (Hons.), 96; B.A. (Pass), 103; B.Com., 29; M.Sc., 2; B.Sc. (Hons.), 8; B.Sc. (Pass), 94; M.D., 41; B.D., 1.

# UNIVERSITY OF ST. FRANCIS XAVIER. ANTIGONISH, NOVA SCOTIA

Chancellor and ex officio Chairman of the Board of Governors-Rt. Rev. J. Morrison, D.D., Ph.D., Bishop of Antigonish.

PRESIDENT-RECTOR—Very Rev. H. P. MacPherson, D.D., D.C.L.

Vice-Rector and Director of Discipline—Rev. D. J. MacDonald, Ph.D.

BURSAR-Very Rev. D. C. MACKAY, B.A.

LIBRARIAN-Miss MARY MACDONALD.

REGISTRAR—Prof. P. J. Nicholson, Ph.D.

DIRECTOR OF STUDIES-Rev. Prof. R. K. McIntyre, B.Sc., M.A.

# PROFESSORS, LECTURERS, ETC.

Biology Chisholm, Rev. J. C., M.A. Prof. Chemistry

Mullins, E., Ph.D. Cath. Univ. of Prof. Amer. McIntyre Rev. R. K., M.A. Cath. Prof. Univ. of Amer.

Classics

MacPherson, Very Rev. H. P., D.D. Laval, D.C.L. Kings (Latin) King's Prof.

Sears, Rev. L. B., M.A. Ox. Prof. Commerce

O'Brien, J. F., M.B.A. Harv. Prof.

Economics and Sociology MacDonald, Rev. D. J., M.A., Ph.D. Cath.U.Am. Prof. Walsh, A. B., M.A. Lectr.

Education

Coady, Rev. M. M., D.D. Urb., Prof. Chaisson, A. F., M.A., Ed.M. Assoc. Prof. Harv.

Engineering

Clarke, T. G., B.Sc., N.S.T. Prof. Eager, R. F., M.E. Consulting E. English Lit.

Bannon, Rev. R. V., M.A. Kenney, J. L., Ed.M. Harv.

Assoc. Prof. French Roche, A. J., L. ès L. Paris

Carnegie Prof. Raiche, Rev. J. F., M.A. Prof.

Gaelic Nicholson, Rev. Prof. P. J. Lectr.

Geology and German MacPherson, Rev. H., Ph.D. Urb., D.D. Rome Prof.

History

Somers, Rev. H. J., Ph.D. Cath. U.A. Prof.

Italian

Sears, Rev. Prof. L. B. Prof.

Mathematics

McKenna, Rev. L. G., M.A. Prof. Clark, G. L., B.Sc. N.S.T.

Assoc. Prof.

Philosophy

MacEachern, Rev. M., S.T.L. Mont. Prof. Physics

Nicholson, Rev. P. J., M.A., Ph.D. J. Hopk. Prof.

Burgess, A., M.A.

Lectr.

Religion [Prof. Mackay, Very Rev. D. C., B.A.

Extension Department [Prof. MacDonald, A. B., B.S.A. Tor.

Coady, Rev. Prof. M. M.

## GENERAL INFORMATION

The Univ. was authorized in 1866 to grant degrees, and was endowed with full Univ. powers in 1882. A new Charter was granted in 1909. The University is under the direction of the Catholic Church, but there are no religious tests for entrance or for degrees. The recent Neil McNeil bequest for endowment is valued at \$600,000. A further \$200,000 will become due on the death of beneficiaries now receiving interest.

LIBRARY, 45,000 vols. LABORATORIES: Biol., Chem., Geol., Phys.

COURSES. 4 yrs., B.A., B.Sc.; 2 yrs., Engineering (gives admission to leading technical Colls. of Canada and U.S.A.); graduate r yr. course for M.A.

EXPENSES. Board and dormitory, \$6 per week; private room, \$2 per week; tuition for session, \$85; laboratory, \$5 to \$10; degree, \$5 to \$10.

A SUMMER School under direction of Prof. P. J. Nicholson. Extension courses directed by Prof. M. M. Coady, D.D., Ph.D.

Publications. Calendar (July); Xaverian, weekly.

# THE YEAR 1930-31

Students. Full-time: total, 278, including 4 graduates.

DEGREES. B.A., 21; B.Sc., 7; M.A., 9.

# UNIVERSITY OF SASKATCHEWAN, SASKATOON

Visitor—Hon. W. H. Newlands.
Chancellor—Sif F. W. G. Haultain, LL.D., D.C.L.
Chairman of Governors—Hon. P. E. Mackenzie, B.A., LL.B.
President—W. C. Murray, M.A., LL.D., F.R.S.C.
Registrar—A. R. Weir, B.A.

# PROFESSORS, LECTURERS, ETC.

PROFESSORS, LECTURERS,	ETC.
Accounting Neilson, J., B.Acc. Prof. Schmitt, C. G. Lectr. Agriculture, v. infra Anatomy [Prof. MacGibbon, R. T., M.B., C.M. Glas. Galloway, A., M.A., M.B., Ch.B. Aberd. Asst. Prof. Bacteriology and Pathology Lindsay, W. S., O.B.E., B.A. Dal.,	Grubb, A. C., Ph.D. Chic. Prof. Larmour, R. K., Ph.D. Minn., M.Sc. Prof. Spinks, J., D.Sc. Lond. Asst. Prof. Fraser, J. H., B.A. Instr. Classics Sullivan, W. G., M.A. Dub. Prof. Ramsay, W., B.A. Qu., Ph.D. Chic. Prof. Ferguson, R. M., B.A. Dub. Prof.
M.B. Edin. Prof. Rea, George, M.B., Ch.B., D.P.H. Belf. Prof. Rayner, N. Asst. Biblical Literature	Economics Swanson, W. W., M.A. Qu., Ph.D. Chic. Prof. M'Queen, R., M.A. Alb. Prof.
Morton, A. S., M.A. Edin., D.D. Hal. Prof. Orton, A. S., S.T.D. Lectr.	Fowke, V., M.A. Instr. Britnell, G. E., B.A. Instr. Education
Biology Thompson, W. P., M.A. Tor., Ph.D. Harv., F.R.S.C. Prof. Fraser, W. P., B.A. Dal., M.A.	Quance, F. M., M.A. Alta., Ph.D. Col. Prof. Laycock, S. R., B.A. Tor., Ph.D. Lond. Prof. Glinz, R. A., M.A. Col., Ph.D.
Corn., M.Sc. McG. Prof. Saunders, L. G., Ph.D. Camb. Asst. Prof.	Stanf. Instr. Engineering, v. infra
Rawson, D. S., Ph.D. Tor.  Asst. Prof.  Rempel J. G. B.A. Instr	English Wilson, R. A., Ph.D. Qu. Prof.
Rempel, J. G., B.A. Instr.  Chemistry Thorvaldson, T., B.A. Man., Ph.D. Harv., F.R.S.C. Prof. Manning, R. J., B.A. Tor., D.Sc. Brist. Prof. Basterfield, S. L., B.Sc. Lond., Ph.D. Chic. Prof.	Lothian, J. M., M.A. Glas. Prof. Bayer, Jean G., M.A. Dal. Prof. Matheson, M., M.A. Qu. Prof. Bentley, J. A., B.A. Dal., Ph.D. Harv. Asst. Prof. Brown, Edith, B.A. Lond. ,, ,, McKenzie, Edith J., B.A. Sask. Asst. Prof.

DAOICHIC	211E W A11 44/
French [Prof.	Philosophy
MacDonald, J. A., M.A. Harv.	Sharrard, J. A., M.A. Tor. Prof.
Cameron, Margaret, B.A. McG.,	Bateman, J. V., M.A. Dub. Prof.
M.A. Rad., D. de l'U. Paris	Markle, W.B., S.T.D., Ph.L. Lectr.
Prof.	Physical Training
Shellburg, G. E., Ph.D. Chic.	Cartwright, Ethel M. Prof.
Instr.	Griffiths, E. W. Instr.
David, J., B.A. Instr.	Physics
Geology	Profs. :
Mawdsley, J. B., B.A. McGill,	Harrington, E. L., Ph.D. Chic.
Ph.D. Princ. Prof.	MacKay, C. A., M.A. Dal., Ph.D.
Edmunds, F. H., M.Sc. Liv. Prof.	Princ.
_	Alty, T., D.Sc. Liv., Ph.D. Camb.,
German	F.I.P.
Anstensen, A., Ph.D. Col. Prof.	Currie, B. W., Ph.D. Asst. Prof.
Steinhauer, H. J., M.A. Tor. Asst. Prof.	Physiology
Hebrew [Lectr.	Fiddes, J., M.D. Aber. Prof.
Munro, M. F., M.A., B.D. Qu.	Political Science
	Dawson, R. M., D.Sc. Lond. Prof.
History	, ,
Morton, A. S., M.A. Edin. Prof.	Agriculture
Simpson, G. W., M.A. Tor. Prof.	
Murray, Jean E., M.A. Instr.	Animal Husbandry Shaw, A. M., B.S.A. Tor. Prof.
Household Science	MacEwen, J. W. G., M.Sc. Ames.
Rutter, Ethel, Ph.B. Chic. Prof.	Asst. Prof.
Oxner, Bertha G., B.A. Col. Prof.	Ewan, A. H., M.A., B.Sc. Edin.
Wilmot, Helen, M.A. Col.	Asst. Prof.
Asst. Prof.	Wood, S. G., B.S.A. Instr.
Law [Dean & Prof.	Dairying
Cronkite, F. C., LL.B. Harv.	Potts, A. E., B.Sc. Edin., M.S.A.
Corry, J. A., B.C.L. Ox. Prof.	Corn. Prof.
Shepherd, F. A., B.A., LL.B. Prof.	Graham, V. E., M.Sc. Wis.
Moxon, A., B.C.L. Ox. Lectr. Estey, J. W., M.A., LL.B. Harv.	Asst. Prof.
Lectr.	Engineering, Agric.
Sibbald, A. S., M.A. Tor. Lectr.	Greig, A. R., B.Sc. McG. Prof.
	Hardy, A. E., M.S. Iowa Prof.
Mathematics	Frey, R. P., M.S. Iowa Instr.
Ling, G. H., B.A. Tor., Ph.D. Col.,	Verbeke, G. J. Instr.
LL.D. Tor. Prof.	Farm Management [Prof.
Dines, L. L., Ph.D. Chic. Prof. Pvke, A. I., M.A. Tor. Prof.	Allen, W., B.S.A., Ph.D. Corn.
Pyke, A. J., M.A. Tor. Prof. Ferns, H. H., B.A. Instr.	Hope, E. C., M.A. Corn. Asst. Prof.
	Field Husbandry [Prof.
Pharmacy	Champlin, M., M.Sc. S. Dak.
Campbell, Alex. Emeritus Prof.	Kirk, L. E., B.A., M.S.A., Ph.D.
Woods, Esli, B.S.P. Dean.	Minn. Prof.
Rodman, F. B., B.Sc., B.S.P. Instr.	Harrington, J. B., Ph.D. Minn.
Black, F. G. Demr.	Prof. Stevenson, T., M.Sc. Research Asst.
Diack, P. G. Delli.	Stevenson, 1., M.Sc. Research Asst.

Horticulture Prof.
Patterson, C. F., B.A. Tor., Ph.D. Ill.
Poultry
Baker, R. K., B.A. Manc. Prof.

Baker, R. K., B.A. Manc. Prof. Rae, W. J., M.Sc. Wis. Asst. Prof.

Joel, A. H., B.Sc. Mich. Prof. Edmunds, F. H., M.Sc. Liv. Lectr. Mitchell, J., Ph.D. Wis. Asst. Prof. Larsen, H., B.Sc. Instr.

Veterinary Science Fulton, J. S., D.V.M.

Wright, N., V.S. Research Prof. Lectr.

Engineering, v. also Agric.

Ceramic E.

Worcester, W. G.

Prof.

Civil E.

MacKenzie, C. J., B.E. Dal.,
M.C.E. Harv. Dean and Prof.

Williams, G. M., B.Sc. Neb. Prof. Spencer, R. A., B.Sc. McG. Prof. Phillips, E. K., M.Sc. Lectr.

Electrical E.

Lovell, W. E., B.Sc. Manit. Prof. Mechanical E.

Greig, A. R., B.Sc. McG. Prof. Fraser, I. M., B.Sc. McG. Prof. Atkinson, A. L., B.Sc. Durh.

Instr.

#### Extra-Mural Work

Raynor, J. G., B.S.A. Man.
Director.

Gordon, K. W., B.S.A. Man.

Asst. Dir.

Brockelbank, E. E., M.Sc. Minn.

Ramsay, R., B.S.A. Asst. Oxner, B., M.A.

Dir. of Home-makers Clubs.

### AFFILIATED COLLEGES, ETC.

EMMANUEL COLLEGE, estabd. 1879 for training native helpers at Prince Albert, transferred to its present site in the Univ. grounds in 1909. Principal, R. H. A. Haslam, M.A., D.D. Courses for Testamur, Lic.Th., B.D.

St. Chap's, Regina (Church of England). Warden, G. N. Dobie, D.D.

St. Andrews College, Saskatoon. Principal, E. H. Oliver, M.A., Ph.D. Lutheran Seminary, Saskatoon. Principal, Rev. H. W. Harms.

JUNIOR COLLEGES—Regina College; Campion Coll., Regina; Luther Coll., Regina; St. Peter's Coll., Munster; Sacred Heart Academy; Outlook Coll.; Moosejaw Collegiate.

COLLEGE OF PHYSICIANS AND SURGEONS; LAW SOCIETY; DENTAL COUNCIL; PHARMACEUTICAL ASSOCN.; ASSOCN. OF REGISTERED NURSES; VETERINARY ASSOCN.; ASSOCN. OF ARCHITECTS; INST. OF CHARTERED ACCOUNTANTS; OPTOMETRISTS; LAND SURVEYORS.

#### GENERAL INFORMATION

Established by Act of the Provincial Legislature in 1907, the Univ. opened classes in Arts and Sciences in 1909. For early history and constitution, see Yearhook for 1929. The site includes 1340 acres devoted to Agric. Education and Research, and a campus of 300 acres with a half-mile river frontage. The land, buildings, and equipment cost about \$4,000,000. The maintenance of the Univ. is partially provided for by assignments of revenue and legislative grants. The annual budget exceeds \$700,000.

The University conducts the LICENCE EXAMINATIONS for the following professions:—Medicine, Law, Dentistry, Accounting, Archit., Nursing, Vet., Optometry, Pharmacy, Land Surveyors, Drugless Practitioners, Engin.

There are laboratories for the investigation of (1) animal diseases, (2) cereal chemistry, while special provision is made for research work in connexion with cement and concrete.

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Bassam, Bertha, B.A. Qu. Lectr.	Bramfitt, G. N., B.A., B.Pæd.
6 Instrs.	Lectr. (Coll. of Educ.).

Coughlin, Rev. H., B.A. W. Ont. Oriental Lang. Ph.D. Rome (Theodicy) Taylor, W. R., Ph.D. Prof. (C.). Meek, T. J., B.A., B.D. McCorm., Assoc. Prof. (M.). Boyle, Rev. T. O., B.A. St. F. X., Ph.D. Chic. (on leave) D.D. Laval Lectr. (M.). Prof. (C.). Winnett, F. V., M.A., Ph.D. **Physics** Lectr. (C.). McLennan, J. C., O.B.E., Ph.D., McCullough, W. S., M.A. D.Sc., LL.D., F.R.S. Temp. Lectr. (C.). Burton, E. F., B.A. Camb., Ph.D. McLaughlin, J. F., B.A., D.D. Prof. (V.). Satterly, J., M.A. Camb., D.Sc. Mercer, S. A. B., B.A. Harv., C.E., Prof. Lond. M.A. Wisc., Ph.D. Munich, Gilchrist, L., M.A., Ph.D. Chic. Prof. (T.). D.D. Nashotah Assoc. Prof. McTaggart, H. A., B.A. Camb., 2 Fellows (C.), I Fellow (T.). Ph.D. Assoc. Prof. Philosophy, v. also Classics Ainslie, D. S., M.A., Ph.D. Brett, G. S., M.A. Ox. Prof. Asst. Prof. Robinson, T. R., Ph.D. Assoc. Prof. Ireton, H. J. C., M.A. Lectr., Demr., and Res. Assoc. Anderson, F. H., Ph.D. McLay, A. B., B.A. McM., M.A., Assoc. Prof. Res. Assoc. MacCallum, H. R., B.A. Qu. and Ph.D. Assoc. Prof. Barnes, C., M.Sc. Leeds Ox. Lectr. and Res. Asst. Macdonald, E. W., B.A. Qu. Crawford, M. F., B.A. W. Ont., Lectr. Tracy, F., B.A., Ph.D. Clark, Tech. Asst., Demr. & Lectr. LL.D. McM. (Ethics) Prof. (C.). 23 Demrs., etc. Lane, W. B., M.A., Ph.D. Wisc. Physics, Engineering, and Photo-(Ethics) Prof. (V.). J., M.A., B.D., S.T.D. Line, Anderson, G. R., M.A. Tor. and (Ethics) Assoc. Prof. (V.). Prof. Harv. Kingston, G. F., M.A., B.D. Lectr. Jackson, K. B., B.A.Sc. King's, Ph.D. (Ethics) (Dean 5 Demrs. of Residence) Prof. (T.). Physiology Gilson, E., D. ès L. Paris, LL.D. Best, C. H., M.A., M.B., D.Sc. St. And., Ph.D. Mont., D.Litt. Prof. Lond. Ox. (Mediæval P.) Prof. (M.). Irving, L., A.M. Harv., Ph.D. Roach, Rev. W. J., B.A. Assoc. Prof. Stanf. (Ethics) Prof. (M.). Taylor, N. B., M.B., F.R.C.S. McCorkell, Rev. E. J., M.A. Edin. Assoc. Prof. Cath.U.Am. O'Sullivan, P. M., M.B., Ph.D. (Social Eth.) Prof. (M.). Lectr. Bellisle, Rev. H. S., B.A., M.A. 1 Demr. and 9 Fellows, etc. Cath.U.Am. (Logic) Political Science, v. also Law Prof. (Logic) (M.). Urwick, E. J., M.A. Ox. Sullivan, Rev. B., M.A. (Soc. Eth.)

(C.), (V.), (T.), (M.) = Univ., Victoria, Trinity, St. Michael's College.

(Acting Dir. Soc. Service) Prof.

Assoc. Prof. (M.).

Prof.

Public Speaking [Spl. Lectr. Jackman, W., M.A. (Rural Econ.) Kirkpatrick, F. H., Ph.B. Hiram Prof. Religious Knowledge, v. infra, Jackson, G. E., B.A. Camb. Prof. Federated Colls. Innis, H. A., M.A. McM., Ph.D. Chic. Assoc. Prof. Social Science, v. also Pol. Sci. Kemp, H. R., M.A. Assoc. Prof. Dir. and Prof. Bladen, V. W., M.A. Ox. McGregor, Agnes Asst. Dir. Asst. Prof. Cassidy, H. M., B.A. Brit. Col., Brady, A., B.A., B.A. Ox., M.A., Ph.D. Brook. Asst. Prof. Ph.D. Asst. Prof. Macmillan, J. W., B.A., D.D. Drummond, W. M., B.A. Qu., (Sociology) Prof. (V.). M.A. Asst. Prof. Hamilton, Berta, M.A. Tor. and Morgan, L. T., B.A. Br. Col., M.A., St. And. Lectr. Ph.D. Cal. Asst. Prof. i3 Lectrs. (part-time). Lectrs.: Spanish, v. Italian Perold, J. G., M.A., B.D. Parkinson, J. F., B.Com. Lond. Surveying Biss, Irene M., B.A. Camb., M.A. Treadgold, W. M., B.A. Bryn Mawr. Crerar, S. R., B.A.Sc. Assoc. Prof. MacGregor, D. C., B.A. Banting, E.W., B.A.Sc. Assoc. Prof. Plumptre, A. F. W., B.A. Tor. and Melson, J. W., B.A.Sc. Asst. Prof. Camb. Zoology, v. Biology Van der Sprenkel, O. P. N. B., B.Sc. Lond. Glazebrook, A. J. (Banking and Medicine Finance) Spl. Lectr. (for subjects of the first 2 vrs.-Anat., etc., v. supra) Psychology Bott, E. A., B.A. Prof. Bacteriology, v. Pathology Blatz, W. E., M.A., M.B., Ph.D. Gynæcology, v. Obstetrics Chic. Prof. Chant, S. N. F., M.A. Asst. Prof. History of Medicine Line, W., B.Sc. Mt. A., M.A., B.Ed. Elliott, J. H., M.B., F.R.C.P.C. Alb., Ph.D. Lond. Asst. Prof. Prof. Ketchum, J. D., M.A. Lectr. Hygiene, v. also Food [Prof. Deadman, Ethel F., M.A. Alb., FitzGerald, J. G., M.D., LL.D. Qu. S.M. Chic. Lectr. Defries, R. D., M.D., D.P.H. Prof. St. Phelan, G., M.A. F. X., Fraser, D. T., B.A., M.B., D.P.H. Ph.D. Louvain Prof. (M.). Assoc. Prof. 4 Instrs., 12 Class Assts., etc. Moloney, P. J., Ph.D. Asst. Prof. Cunningham, J. G., B.A., M.B., Public Health Nursing D.P.H. Lectr. Russell, Edith K., B.A. King's, Porter, G. D., M.B. Lectr. B.Pæd. Director. McKinnon, N. E., M.B.

Emory, Florence

6 Spl. Lectrs.

Asst. Director and Lectr.

(H. and Epidem.) Asst. Prof.

(Vital Stat.) Lectr.

Ross, Miss M. A., B.A. Dal., M.A.

McCullough, J. W. S., M.D., C.M., D.P.H. (Pub. Health Admin.) Lectr.

2 Demrs., 4 Class Assts.

Life Insurance

Hutchison, H. S., M.B.

Spl. Lectr.

Medical Ethics Young, G. S., B.A., M.B.

Spl. Lectr.

Medical Jurisprudence Crawford, M. M., M.B. Assoc.

Medical Research

Banting, F. G., M.D., LL.D. Qu. and W. Ont., D.Sc. Prof. Cameron, G. C., M.D. Assoc. Prof. King, E. J., M.A. McM., Ph.D. Asst. Prof.

3 Assocs., 3 Assts., 3 Fellows.

Medicine and Clinical Medicine Graham, D. A. L., M.B. Prof.

Asst. Profs.: Howland, G. W., B.A., M.B.

Oille, J. A., M.D. Clarkson, F. A., M.B.

(Clin. Med.) (also Assoc. Prof. in Fac. of Dent.).

Hutchison, H. S., M.B. Loudon, J. D., B.A., M.B. Trow, E. J., M.B. (Dermat.).

Assocs.:

Campbell, W. R., M.A., M.D. Elliott, J. H., M.B. McPhedran, W. F., B.A., M.B. Parsons, H. C., M.A., M.D., C.M. 26 Demrs., 5 Fellows.

Obstetrics and Gynæcology Hendry, W. B., B.A., M.B. Prof. Assoc. Profs.:

McIlwraith, K. C., M.B. (Obstet.). Marlow, F. W., M.D., C.M., F.R.C.S.Eng. (Gynæc.).

Frawley, N. D., M.B. Asst. Prof. Wesley, R. W., M.B. Asst. Prof. Scott, W. A., B.A., M.B., F.R.C.S. Eng. Asst. Prof. Kinnear, J. A., M.D., C.M. Assoc. 10 Demrs., 3 Fellows.

Ophthalmology

Lowry, W. H., M.D., C.M. Prof. 4 Demrs., 1 Asst.

Oto-Laryngology

Goldsmith, P. G., C.B.E., M.D., C.M. Prof. Royce, G., B.A., M.B. Assoc. Prof. Biggs, G. M., M.B. Assoc. Boyd, E., B.A., M.B. Assoc. 8 Demrs.

Pathology and Bacteriology

Klotz, O., M.B., M.D., C.M. McG. Prot.

Holman, W. L., B.A., M.D., C.M. M¢G. (Bact.) Prof. Robinson, W. L., B.A. McM.,

M.B. (Path.) Assoc. Prof. Detweiler, H. K., M.D. (Serology) Assoc. Dir.

Lectrs.:

Magner, W., M.D., D.P.H. (Path.). Bates, J. E., B.A. McM., M.B. (Path.).

Saddington, R. S., M.B., B.Sc. (Med.) (Path.).

Clifford, E. J., M.B. (Bact.).

Greey, P. H., M.D., B.Sc. (Med.) (Bact. and Serol.).

8 Demrs., 2 Assts., 3 Fellows.

Pathological Chemistry

Harding, V. J., D.Sc. Manc. Prof. Nicholson, T. F., M.B., B.Sc. (Med.) Asst. Prof.

I Demr., 2 Assts., 2 Fellows.

Pediatrics

Brown, A., M.B. Assoc. Prof. Canfield, A. W., M.D., C.M. Assoc. 8 Demrs.

Pharmacy and Pharmacology Henderson, V. E., M.A., M.B.

Prof.

Lucas, G. H. W., Ph.D. (Pharmacol.) Assoc. Prof. 2 Fellows, 3 Assts.

Assoc.

13 Assocs.

Ante, I. H., D.D.S.

Dental Anatomy
Crouch, S. S., D.D.S.

Psychiatry

J.Hop.

3 Demrs.

Farrar, C. B., A.B. Harv., M.D.

Lewis, E. P., B.A. McM., M.B.

Prof.

Prof.

Hoskin, H. A., D.D.S. Asst. Prof.

Crown and Bridge Prosthesis

Radiology Dental Bibliography Richards, G. E., M.B. Assoc. Kennedy, C. A., D.D.S. Librarian. 2 Demrs. Dental Histology, Pathology, and Surgery and Clinical Surgery, Bacteriology v. also Med. Jurisp. [Prof. Cameron, G. C. Prof. Gallie, W. E., M.D., F.R.C.S.Eng. I Assoc. Primrose, A., C.B., M.B., C.M., Dental Praxis LL.D. Edin., F.R.C.S. Eng. Conboy, F. J., D.D.S. Prof. (Clin. S.) Prof. Starr, F. N. G., C.B.E., M.B., Dental Surgery and Anæsthesia M.D., C.M. (Clin. S.) Prof. Paul, E. W., D.D.S. Asst. Profs.: 2 Assocs. B.A., Tones, W. W., M.B., Dental Technology and Metal-F.R.C.S.Eng. lurgy Beatty, H. A., M.B. Cowling, T., M.A. McM., D.D.S., Shenstone, N. S., B.A., M.D. Col. B.Pæd. Prof. Wilson, G. E., M.B., F.R.C.S. Rous, C. C., B.A.Sc. Lectr. Eng. Operative Dentistry Cameron, M. H. V., M.B. [Prof. Webster, A. E., D.D.S., M.D. Chic. Robertson, D. E., M.D. I Assoc. Ryerson, E. S., M.D., C.M. (also Asst. Prof. in Fac. of Oral Surgery Assoc. Prof. Dent.). Risdon, F. E., M.B., D.D.S. Graham, R. R., M.B. Orthodontia Clutterbuck, H. E., M.D., C.M., Corrigan, C. A., D.D.S. F.R.C.S. Edin. Assoc. Prof. Le Thesurier, A. B., M.B. Assoc. Kennedy, C. A., D.D.S. Scott, W. A., C.M.G., B.A., M.D., Assoc. Prof. F.R.C.S. Eng. Assoc. 31 Demrs., 6 Fellows. Peridontology [Research Prof. Box, H. K., D.D.S., Ph.D. Therapeutics 1 Assoc. Rudolf, R. D., C.B.E., M.D. Edin., Preventive Dentistry F.R.C.P. Lond. Prof. Seccombe, W., D.D.S. Prof. Johnston, S., M.A., M.D., C.M. I Assoc., I Asst. (Anæsth.) Lectr. 8 Demrs. Prosthetic Dentistry Lott, F. M., D.D.S., B.Sc. (Dent.) Dentistry Assoc. Prof. Clinical Dentistry Willmott, W. E., D.D.S. Tor. and Mason, A. D. A., D.D.S. Phil. Assoc. Prof. Prof. Switzer, W. G., D.D.S. Assoc. Prof. I Assoc.

# COLLEGES OF THE UNIVERSITY

UNIVERSITY COLLEGE. Principal—M. W. Wallace, B.A., Ph.D.; Registrar—W. J. McAndrew, M.A.

VICTORIA COLLEGE, in the Faculty of Arts of the Univ., v. infra. TRINITY COLLEGE, in the Faculty of Arts of the Univ., v. infra.

St. Michael's College, in the Faculty of Arts of the Univ., v. infra.

#### FEDERATED UNIVERSITIES

University of Trinity College, see p. 465. Victoria University, see p. 466.

#### FEDERATED COLLEGES

St. Michael's College. Superior—Rev. E. J. McCorkell, M.A.; Registrar—Rev. B. Sullivan, M.A. Other Teachers: the Profs., etc., marked (M.) in above list, also Rev. M. J. Oliver, B.A., Ph.M., and Rev. J. B. O'Reilly, S.T.L., Ph.D.

KNOX COLLEGE, WYCLIFFE COLLEGE, and EMMANUEL COLLEGE. Teachers giving instruction in Univ. courses (Religious Knowledge): (1) Knox—Rev. J. D. Cunningham, M.A., D.D. (2) Wycliffe—Rev. W. R. R. Armitage, M.A.; Rev. B. W. Horan, M.A., B.D.; Rev. T. W. Isherwood, M.A.; Rev. R. Mercer-Wilson, M.A.; Rev. C. V. Pilcher, M.A., D.D.; Rev. W. E. Taylor, M.A., Ph.D. (3) Emmanuel—Rev. R. Davidson, M.A., Ph.D.; Rev. J. Dow, M.A., D.D.; Rev. A. Gandier, M.A., D.D., LL.D.; Rev. A. J. Johnston, B.A., D.D.; Rev. J. Line, M.A., B.D., S.T.D.; Rev. W. C. MacDougall, M.A., B.D., Ph.D.; Rev. J. F. McLaughlin, B.A., D.D.; Rev. J. H. Michael, M.A., D.D.; Rev. D. M. Ramsay, M.A., D.D.

#### AFFILIATED COLLEGES

Ontario Agricultural College, Guelph. (For B.S.A. degree.) President—G. I. Christie, B.S.A., D.Sc. 16 Profs., 11 Assoc. Profs., 8 Asst. Profs., and 30 Lectrs. 47 Demrs. and Instrs.

ONTARIO COLLEGE OF PHARMACY, TORONTO. Dean—C. F. Heebner, Ph.G.,

Phm.B. Registrar-Treasurer—J. F. Roberts. Faculty—4 Teachers.

Ontario Veterinary College, Guelph. (For B.V.Sc. degree.) Prin-

cipal-C. D. McGilvray, D.V.S. Faculty-13 Teachers.

Albert College, Belleville; Alma College, St. Thomas; Ontario Ladies' College, Whitby; St. Hilda's College, Toronto (the Women's Residence for Trin. Coll.).

Ontario College of Art.—Principal—J. E. H. MacDonald, A.R.C.A. Royal College of Dental Surgeons of Ontario.

#### GENERAL INFORMATION

An appropriation of 500,000 acres of land for the support of 4 grammar schools and a Univ. in Upper Canada was made in 1798, and a Royal Charter was granted in 1827 for a "King's College" with the privileges of a Univ., but it was not until 1843 that the College was inaugurated. For early history, see Year Book, 1929.

LIBRARY, 263,056 vols. and 94,626 pamphlets. Annual Grant for books, \$54,500; 2000 periodicals and serials received. The (Science) Library of the Roy. Can. Inst. is housed in the same building. Museums: The Royal Ontario Museums—Archæology, Geology, Mineralogy, Palæontology, and Zoology; departmental museums; Trinity has a Nat. Hist. and Archæol.

Museum of its own; the Agric. and Vet. Colleges, Knox, and the Faculty of Dentistry have each one.

LABORATORIES: in all depts. of Applied Science and Engineering as well as Anat., Bio-chem., Biol., Bot., Chem., Geol., Household Sc., Hygiene, Mineralogy, Path., Physics, Psychol., Physiol.; described in *Bulletin* for Graduate Students. Botanical Garden. Observatory. Hospitals available for Clinics: General, 1045 beds; Children's, 387; St. Michael's, 610; Western, 300; Psychiatric, 60; Isolation, 405.

FACULTIES. Arts, Medicine, Applied Science and Engineering (Depts.—Archit., Civil E., Mining E., Mech. E., Chem. E., Elec. E., Metall. E.), Household Sc., Education, Forestry, Music, School of Graduate Studies, Dentistry. Departments. Social Science, Public Health Nursing, University Extension.

SECRETARIES OF FACULTIES: (Arts) A. B. Fennell, M.A.; (Med.) E. S. Ryerson, M.D., C.M.; (Applied Sci. and Engin.) W. S. Wilson, B.A.Sc.; (Household Sci.) Clara C. Benson, Ph.D.; (Educ.) Lyda Swinarton; (Forestry) R. C. Hosie, B.Sc.F., M.A.; (Music) Annie W. Patterson, B.A.; (School of Graduate Studies) Nora Mackenzie; (Dentistry) C. C. Rous, B.A.Sc.

University Matriculation Board. A Board created by the Univs. of Toronto, Queen's, McMaster, W. Ont., and Ottawa conducts and controls their annual Matricon examns. The Dept. of Educn. of Ontario provides the machinery for holding these examns, and the Registrar of the Dept. is Secy. of the Board. A report signed by all members of the staff of the school concerned as to the standing of their candidates is considered in determining the results of the examn.

The subjects of Pass Matricn. are (1) Latin, (2) Engl., (3) Hist., (4) Maths., (5) Greek, (6) French, (7) German, (8) Spanish or Italian, (9) Physics and Chem., or (10) Agric. For Matricn. in Arts it is necessary to pass in (1) to (4) and any two of (5) to (10) for admission to the Pass Course with honour standing in at least 5 specified subjects. To obtain this honour standing a student must spend at least one yr. at school after completing Pass Matrn. In certain cases foreign students may substitute their native lang, for Greek or French or German. Music is accepted as an option for Ancient Hist. (the subject of one of the two Hist. papers, the other being Canadian Hist.).

For Matricn. in the Univ. of Toronto in Med. the requirements are (1) to (4), (9), and any one of (5) to (8), with honour standing in (2), (4), and one of (5) to (7) and two other subjects; in Applied Sc. or Forestry—(2), (3), (4), and any three of (1) and (5) to (10), with honour standing in (2), (4), (9), and one of (1), (5) to (8); in Household Science—(2), (3), (4), three of (5) to (9), with honour standing in at least 5 specified subjects; in Music—(1), (2), (3), (4) and two of (5) to (9); in Dentistry—(1), (2), (3), (4), (9), and one of (5) to (8), with honour standing in (2), (4), and one of (1), (5) to (8).

Minimum age for admission to the Faculty of Arts, 16; Law, 21; Med., 17; Appl. Sc., 17; House. Sc., 16; Educn., 19; Forestry, 17; Dentistry, 16.

Degree Courses. 4 yrs.—B.A., B.Com., B.A.Sc., B.Sc. (Med.), B.Sc. (Dent.), B.H.Sc., B.Sc.F., B.S.A. and B.V.Sc. (at Guelph); 3 yrs.—Mus.B.; 2 yrs.—Phm.B.; 5 yrs.—B.Arch., D.D.S.; 6 yrs.—M.D. Combined courses: B.A. and M.D.—7 yrs.

Students from the British Isles will be admitted to Medicine and Applied Sc. on submitting certificates of registration with the General Medical Council of Great Britain and the Institution of Civil Engineers.

Honour courses for the B.A. and B.H.Sc. are provided in Household Science. The requirements for admission to the 5-yr. course at Osgoode Hall Law

School are the completion of 2 yrs. in the Fac. of Arts, but graduates in Arts are admitted to a 3-yr. course at the Law School.

The B.Sc. (Med.) may be obtained by Med. students who, after the 4th or subsequent year of Med. study, having maintained therein a prescribed standard of proficiency, spend a year in an approved course of study, and show facility in reading one modern language besides English.

A student who has already graduated in the Faculty of Arts, Med., or Sci. of a Canadian or other recognized Univ. may complete the course in Dentistry in 4 yrs. instead of 5, provided he has covered certain prescribed subjects during his undergrad. course; and persons holding the L.D.S. of one of the Med. authorities of Great Britain or the B.D.S. of approved Australian Univs. may be admitted in the Fac. of Dentistry without further examn., and to the final D.D.S. examns. on completing one full session at the Fac. of Dentistry.

Higher Degrees. M.A., obtainable by approved course of graduate study extending over 2 yrs. or, in the case of a B.A. in an Honours course, 1 yr.; Ph.D., open to a graduate in Arts (or, on special conditions, another Faculty) of this or another recognized Univ. by pursuing in the Univ. of Toronto an advanced course of study for 3 yrs., exemption from 1 of which may be given in consideration of the candidate having already pursued such a course for 1 yr. A thesis embodying the result of an original investigation is required.

M.S. obtainable after 2 yr. course open only to graduates in Med. of a recognized Univ. The D.P.H. course (for Med. graduates) covers 11 months—I winter and I summer session.

The M.A.Sc. and the M.Arch. may be obtained by a B.A.Sc. or a B.Arch. respectively, of this Univ. who pursues a course of advanced study in the Faculty for r yr., presents a satisfactory thesis, and passes such examns. as may be prescribed.

The professional degrees, C.E., M.E. (Mining or Mech.), E.E., Chem.E., Met.E., are open to candidates who, after obtaining the B.A.Sc. or diploma of the Faculty, spend 3 yrs. in the actual practice of one of these branches of engineering, present a satisfactory thesis, and pass examns. The F.E. may similarly be obtained by a B.Sc.F., and the M.Sc.F. in 2 yrs.

The B.Pæd. and D.Pæd. are open to graduates in Arts or Science of any British Univ. who hold a 1st class or High School Asst.'s certif. of Ontario or its equivalent, and pass, after 2 yrs.' (D.Pæd.—3 yrs.) successful experience in teaching, prescribed examns. For the D.Pæd. a thesis is also required, and the candidate must have attended a summer course (or its equivalent) in each subject of examn.

The M.S.A. is open to grads, who have obtained the B.S.A. degree or its equivalent. It involves at least 1 yr.'s work.

The M.Sc. (Dent.) is open to grads. of the Fac. of Dentistry of Toronto or those with equivalent standing. It involves at least 2 years' work.

The M.V.Sc. or the D.V.Sc. is open to grads. who have obtained the B.V.Sc. degree or its equivalent.

The Mus.D. is open to a Mus.B. of this or another Univ. of 3 yrs.' standing. The Univ. publishes annually an announcement of Graduate Courses. All communications on the subject must be addressed to the School of Graduate Studies.

Training of Teachers. Courses are provided for Teachers' certificates of several grades, including the Household Science and the Physical Culture Teachers'. The Educa Dept. of Ontario grants certifs. on the results of Univ. examps., entitling the holders to teach in the High Schools. All teachers for High Schools and Collegiate Institutes must spend at least r yr. in the College of Education.

FEES. Students proceeding to the B.A. and enrolled in one of the Colleges of the Univ. attend lectures of Univ. Profs. and Lectrs. in the Fac. of Arts without payment of fees except for lab. supplies. The College Fees, which entitle students to attend lectures in their respective Colleges, are \$75 p.a. Medical students pay for tuition, lab. supply, hospital and annual examn., \$200 (\$150 for 1st year only) p.a. Certificate courses in the Coll. of Education cost \$25 p.a.; Forestry, \$125 p.a.; Applied Sci. and Engin., \$200 p.a.; Household Sci., \$100 p.a.; D.P.H., \$200 p.a.; Dentistry, \$200 p.a.

Scholarships. Numerous fellowships, scholarships, bursaries, and prizes are available. In the Fac. of Arts there are 21 scholarships for students in their 1st yr. (2 open to women only), 26 in 2nd yr. (1 open to women only), between 30 and 40 in 3rd yr., 4 in 4th yr., 1 open to 1st, 2nd, or 3rd yr., and a number open to students of any yr. In the Fac. of Med. there are 25 fellowships, scholarships, and bursaries, of which 10 are open only to graduates. In the Fac. of Applied Sci. and Engin. between 30 and 40, 2 being for graduates only. Several in the Facs. of Forestry and Dentistry, and in the Fac. of Household Sci. the Marion Dickenson Scholarship for graduates, value \$500, tenable at Teachers' Coll., Columbia Univ., to be offered in June 1932 and every 2nd yr. thereafter.

For post-graduate scholarships and fellowships, etc., open to non-members of the Univ., see App. XXIII.

RESIDENCE. University Houses accommodate 150 men, rent, \$4 per week; Univ. Coll. Houses, residence and board for women (166), about \$9.50 per week; Victoria Coll. Halls for 132 men, about \$9 per week, and 144 women, \$200 to \$300 p.a.; Trinity Coll. provides for 80 men and 70 women; St. Michael's (R.C.) has also residences for men and women.

HART HOUSE, the gift of the Massey Foundation in memory of Mr. Hart Massey, affords all the facilities of a first-rate club for undergrads. It includes many halls and rooms, providing for all the activities in the undergrads.' life other than work in the lecture room. Annual fee, \$10. Warden—J. B. Bickersteth, M.A.

MEDICAL ADVISOR FOR WOMEN STUDENTS-Edith Gordon, B.A., M.B., D.P.H.

University Extension and Publicity. (r) Classes are held in the evenings and on Saturdays, for teachers proceeding to the B.A. degree. (2) Summer Session in Arts and Pedagogy for teachers. (3) Extension lectures throughout the Province. (4) Evening classes offering continuous courses in fifty subjects, without Univ. credit. (5) Correspondence courses in matrical and commercial subjects. (6) Two-yr. diploma courses in Occupational Therapy and in Physiotherapy. (7) A one-yr. diploma course in teaching and administration for Graduate Nurses. (8) Workers' Educational Association classes. (9) Short refresher courses for nurses and others. (10) Publication and distribution of various bulletins and pamphlets for the Univ. and for the Royal Ontario Museum. (11) Univ. exhibits. Total no. attending Extension lectures, 29,243. Total no. in Extension courses and classes, 5096. Director—W. J. Dunlop, B.A., B.Paed.

Publications. President's Annual Report; Board of Governors' Report; Calendars, April-May; Bulletins of the Dept. of University Extension; Medical Bulletin; Univ. Monthly; Can. Historical Review; Univ. Studies; Students' Mags.—'Varsity, Torontonensis.

# THE YEAR 1930-31

BENEFACTIONS. During the past year ending June 30, 1931, the Univ. has received the following benefactions, totalling \$776,789.98: From the Rockefeller Foundation, Hygiene Endowment, \$600,000; D. A. Dunlap Bequest and Memorial Scholarship, \$51,000; Spelman Fund (Laure Spelman Rockefeller Memorial) for Child Research and alterations to building, \$25,009.38; Eaton Endowment, annual payment, \$25,000; Carnegie Corporation "Educational Research" \$10,000; Rockefeller Foundation, pædiatrics, \$7995; Estate of late Dr. F. Le M. Grasett, for Lister Prize in Clin. Surg., \$5000; Graduate Fellowships donated by: Estate of late Sir Edward Kemp, \$500; Imperial Oil, Ltd., \$500; Col. R. W. Leonard, \$500; Robert Simpson Co. (for 1931-32), \$500; Sir Joseph Flavelle, \$1000; Canadian Pacific Railway (for 1931-32), \$1500; Donations in Fac. of Dentistry: J. P. Bickell, \$3000; Canadian Dental Research Foundation Fund, \$500; Ontario Dental Assn. Fellowship, \$250; Ash Temple Scholarship, \$250; J. B. Willmott Scholarship, \$250; Estate of late Col. H. J. Grasett, C.M.G., Grasett Memorial Scholarship in Classics, \$3750; Gertrude Lawler Memorial Scholarship in English and Hist., \$3000; Sir Joseph Flavelle and E. R. Peacock, for Flavelle-Peacock Lectureship, each \$1250; Mrs. Elizabeth S. Vander Smissen, Vander Smissen Scholarship, \$2500; Univ. Coll. Women's Undergraduate Assn., for Residences. \$2,263.52; J. H. Gundy, William E. Wilder Fellowship, \$1500; Social Science Scholarships: Community Welfare Councils of Ontario, \$800; Anon.. \$500; Anon., \$200; S. R. Parsons Scholarship, \$750; E. C. Whitney Bequest. \$706.86; Sir Edmund Walker Scholarship, \$600; Gertrud Davis Exchange Fellowship, \$500; Robert Bruce Scholarship, \$486.02; T. M. Porter Special Scholarships, \$480; Univ. Coll. Alumni Scholarship, \$400; Maurice Cody Scholarship in Univ. Coll., \$125; Maurice Cody Memorial Scholarship in Mod. Hist., \$160; Maurice Cody Memorial Scholarship in Univ. Schools, \$25; Mrs. G. M. Kilgour, John McCrae Scholarship, \$275; Star Printing & Publishing Co., Botanical Research, \$250; Consolidated Mining & Smelting Co. of Canada, Ltd., Botanical Research, \$250; Univ. Schools Scholarships: Hon. N. W. Rowell, K.C., for Langford Rowell Scholarship, \$100; Sir John Eaton Memorial, \$120; Ontario Assn. of Architects Scholarship, \$200; Boiler Inspection and Insurance Co. Scholarship, Mech. Engin., \$150; Robert Simpson Co. Scholarship, \$150; Rev. Dr. H. J. Cody Scholarship, \$125; Darling and Pearson Prize in Archit., \$100; Delta Phi Epsilon Scholarship, \$100; J. J. Gibson Matrico. Scholarship, \$100; T. H. Barton for Jardine Memorial Prize. English Verse, \$100; Toronto Brick Co., Prizes, Archit., \$100; Univ. Coll. Alumnæ Scholarship, \$100; and 14 of amounts varying from \$75 to \$5.40; Banting Research Foundation Subscriptions, \$20,000.

New Regulations. An undergraduate of a recognized Univ., who has successfully completed 2 full yrs. of work from Pass Matrien., may, for the session 1931-32, be admitted to the 3rd yr. of the Pass Course in the Fac. of Household Science, provided she has, at least, passed satisfactory examns. in Inorganic Chem. and in Biol. Commencing with the session 1932-33, she may be admitted to the 2nd yr. of the new course, which will begin in Sept. 1931, provided she has, at least, passed satisfactory examns. in Inorganic Chem., in Biol. and in Physics.

RETIREMENTS. Herbert Alexander Bruce, Prof. (Clinical Surg.) (retd. Sept. 25, 1930); John Taylor Fotheringham, Prof. (Hist. of Med.); Louis Beaufort Stewart, Prof. (Surveying and Geod.).

RESIGNATIONS. Charles Ryle Fay, Prof. (Econ. Hist.); John Henry Iliffe, Asst. Prof. (Hist. of Indust. Art).

NEW DEVELOPMENT. Banting Institute for Medical Research.

VISITING PROFESSORS. Emer. Prof. R. S. Conway (Classics), Manchester Univ.; Prof. Alexander Meek (Biol.), Durham Univ.; Dr. G. Elliott Smith (Anat.), Univ. of London (England); Prof. H. A. Kramers (Phys.), Univ. of Utrecht; Prof. Michael West (Educn.), Principal, Teachers' Coll., Dacca, India; Prof. Arthur Haas (Phys.), Univ. of Vienna.

Honorary Degrees. LL.D.—The Rt. Hon. the Viscount Dunedin; The Rt. Hon. Lord Tomlin; Sir William A. Jowitt; The Rt. Hon. Sir John Simon; The Rt. Hon. Lord Moynihan of Leeds; Thomas Stephen Cullen, M.B.; Charles Seward Blackwell; H.E. the Earl of Bessborough; The Rt. Hon. Richard Bedford Bennett; The Hon. George Stewart Henry; Simon James McLean, B.A., LL.B., Ph.D.; James Playfair McMurrich, M.A., Ph.D. D.Sc.—Davidson Black, M.A., M.B.; Lawrence Vincent Redman, B.A. D.Eng.—Norman Rothwell Gibson, B.A.Sc.

STUDENTS. The total number of registered students was 7847.

Degrees. LL.D. (Honorary), 5; D.Sc. (Honorary), 1; D.Eng. (Honorary), 1; Ph.D., 17; M.A., 91; M.S., 1; M.A.Sc., 12; M.Arch., 1; M.E., 2; C.E., 1; E.E., 1; D.Pæd., 4; M.S.A., 5; LL.M., 1; Mus.Doc., 1; B.A., 514; B.Com., 39; M.D., 189; B.Sc. (Med.), 6; B.A.Sc., 123; B.Arch., 7; B.H.Sc., 37; B.Pæd., 37; B.Sc.F., 18; Mus.Bac., 1; LL.B., 3; D.D.S., 59; B.Sc. (Dent.), 6; B.S.A., 53; B.V.Sc., 20; Phm.B., 128.

# UNIVERSITY OF TRINITY COLLEGE, TORONTO

(Federated with the University of Toronto.)

Chancellor-....

VICE-CHANCELLOR AND PROVOST—Rev. F. H. COSGRAVE, M.A., D.C.L. DEAN OF RESIDENCE—Rev. G. F. KINGSTON, M.A., B.D., Ph.D.

REGISTRAR-J. N. WOODCOCK, M.A. Ox.

DEAN OF DIVINITY—THE PROVOST.

LIBRARIAN-S. M. ADAMS, M.A.

BURSAR-SYDNEY H. JONES.

Professors and Lecturers: The Profs., etc., marked (T.) in the consolidated list of the University of Toronto, also Rev. J. Lowe, M.A., Rev. S. A. B. Mercer, M.A., D.D., Ph.D., and Rev. H. C. S. Morris, M.A.

The University of Trinity College, founded 1851, Royal Charter, 1852, federated with the Univ. of Toronto, 1904, now confines its Univ. work to the two Faculties of Arts and Divinity. As an Arts College it forms an integral part of the Fac. of Arts of the Univ. of Toronto. The courses of instruction are prescribed by that Univ. Instruction is given in the Coll. in all subjects assigned to the Arts Colls. These include Greek, Latin, Greek and Roman Hist., Ancient

Oriental Hist., Oriental Langs., Engl., German, French, Ethics, and Religious Knowledge. Instruction in other subjects of the Arts Courses is given by the Univ. Students of the Coll. receive the degrees of the Univ. of Toronto at the conclusion of their courses. As a Theological Coll., Trinity maintains its own Fac. of Divinity and confers degrees.

LIBRARY, 35,000 vols.

Publications. Calendar (May); Trinity Univ. Review, monthly; St Hilda's Quarterly Chronicle; Trinity Univ. Year Book, annually.

THE YEAR 1930-31. Students: Full-time, 332, including 10 graduates. Degrees: B.D., 1; L.Th., 2; Arts Degrees listed under Univ. of Toronto.

## VICTORIA UNIVERSITY, TORONTO

(Federated with the University of Toronto.)

Telegraphic Address: Vicollege, Toronto.

President and Chancellor—E. W. Wallace, M.A., D.D. Registrar—C. E. Auger, B.A. Librarian—Rev. F. L. Barber, M.A., Ph.D.

LIBRARY TUTOR-Rev. H. MATHESON, LL.B., D.D.

Prof.

## PROFESSORS AND LECTURERS

Church History Cousland, Rev. K. H., M.C., M.A. Assoc. Prof. Ox., B.D. Ethics Lane, W. B., M.A., Ph.D. Prof. Homiletics and Church History Johnston, Rev. A. J., B.A., D.D. Margaret Cox Prof. Hymnology and Church Music Macmillan, Rev. A., D.D. Lectr. New Testament Greek Tutor. Ramsay, Rev. D. M., M.A., D.D. New Testament Lit. and Exegesis Michael, Rev. J. H., M.A., D.D. Geo. A. Cox Prof. Dow, Rev. J., M.A., D.D. Old Testament Lit. and Exegesis McLaughlin, Rev. J. F., B.A., D.D. Eliza Phelps Massey Prof. Davidson, Rev. R., M.A., Ph.D.,

D.D.

[See also the consolidated List under Toronto, names marked (V.).]

Church History
ousland, Rev. K. H., M.C., M.A.
Ox., B.D.
Assoc. Prof.
Ethics
ane, W. B., M.A., Ph.D.
Prof.

Pastoral Theol., Christian Missions, and English Bible
Gandier, Rev. A., M.A., D.D.,
LL.D.
Prof.

Philosophy and History of Re-

ligion Line, Rev. J., M.A., B.D., S.T.D. Prof.

Preaching [Lectr. Barber, Rev. F. L., M.A., Ph.D.

Public Speaking McMullen, Rev. G. A., B.A. Lectr.

Religious Pedagogy Langford, Rev. F. W., B.A. Prof.

Sociology [Prof. Macmillan, Rev. J. W., B.A., D.D.

Systematic Theology
Macleod, Rev. J., M.A. Glas. Prof.
Roberts, Rev. R., D.D. Lectr.

#### GENERAL INFORMATION

In 1928, by Act of the Legislature of the Province of Ontario, Victoria University, originally founded as the Upper Canada Academy in 1836, received an amended charter by which it continues in federation with the University of Toronto and in connexion with the United Church of Canada (formed in 1925 by the union of the Congregational, Methodist, and Presbyterian Churches in Canada), and includes within itself, under one Board of Regents and one Senate, two Colleges, Victoria College in Arts and Emmanuel College in Theology, the latter formed by the union of the Victoria University Faculty of Theology with Union Theological College (continuing Knox College in the United Church). For early history, see Yearbook for 1929.

LIBRARY. Special features—Canadian verse and Tennysoniana (C. C. James's collections), Methodism in Canada, Education in Ontario.

COURSES. 3 yrs. in Languages, Anc. Hist. and Ethics for Pass B.A.; 4 yrs. for Genl. Course and Hons. Courses; 3 yrs. for B.D., subsequent to graduation in Arts; 3 yrs. for Diploma, subsequent to 3 or 4 yrs. in Arts.

Hostels for 233 men and 226 women students.

Publications. Theological Calendar (May); Bulletin (July); Acta Vict., a students' monthly.

## THE YEAR 1930-31

Benefactions. Building Fund Campaign Collections, \$200,848.

 $N_{\mathrm{EW}}$  Buildings. Emmanuel Coll. Academic Building, and Emmanuel Coll. Residences.

CHANGES IN REGULATIONS. Entrance requirements raised to Senior Matrica, for both Pass and Hons. Courses.

DEATH. Rev. Prof. W. A. Potter, died Mar. 2, 1931.

HONORARY DEGREES. D.D.—Rev. J. E. Hogg; Rev. J. Bruce-Hunter, B.A., B.D.; Rev. W. A. Mactaggart, B.A.; Rev. W. Harold Young, M.A., B.D.

Number of Students. *Victoria College* (Arts): full-time, preparing for B.A., 941; Part-time, occl., 5; Household Sci., 38. *Emmanuel College* (Theology): Full-time, 67; Part-time, 13.

DEGREES. B.A., 173; B.Com., 13; B.D., 16; Dipl. Th., 24.

# UNIVERSITY OF WESTERN ONTARIO, LONDON, ONT.

VISITOR—His Honour W. D. Ross, LL.D., Lieut.-Governor of Ontario. Chancellor—Col. The Hon. Henry Cockshutt, LL.D.

CHAIRMAN OF THE BOARD OF GOVERNORS-A. T. LITTLE.

PRESIDENT-W. S. Fox, Ph.D., D.Litt., LL.D., F.R.S.C.

REGISTRAR-Prof. K. P. R. NEVILLE, M.A., Ph.D.

BURSAR-W. WAUGH, M.D., LL.D.

LIBRARIAN-F. LANDON, M.A.

EXECUTIVE SECRETARY—Col. W. J. BROWN, V.D., B.S.A., LL.M., F.C.I.S.

DEAN OF WOMEN-RUBY E. C. MASON, M.A.

## PROFESSORS, LECTURERS, ETC.

Anatomy

Macklin, C. C., M.B., M.A., Ph.D. Tor., F.R.S.C. Prof.

Skinner, H. A., M.B. Tor.

Assoc. Prof.
Macklin, M. T., A.B., M.D. Joh.
Hopk. Asst. Prof.
6 Instrs.

Astronomy, v. Maths.

Bio-Chemistry

Macallum, A. B., B.A., M.D., Ph.D. Tor. Prof.

r Asst.

Biology, Applied

Detwiler, J. D., M.A. Qu., Ph.D. Corn. Prof.

Botanv

Hart, N. C., M.A. Tor. Prof. Walker, A. R., M.A. Tor.

Assoc. Prof.

Berdau, Helen B., M.A.

Asst. Prof. Business Administration
Hensel, P. H., M.B.A. Prof. Sipherd, L., M.B.A. Asst. Prof. Thompson, W. A., M.B.A.

Asst. Prof.

Carruthers, C. C., B.A., LL.B. (Comml. Law) Lectr.

Marshall, W. F. Lectr.

Chemistry

Gunton, J. A., M.A. McM., Ph.D. Ill. Prof.

Burns, J. W., M.Sc. Queen's

Asst. Prof. Sivertz, C., B.A.Sc. Br. Col., M.Sc. and Ph.D. McG. Asst. Prof. Hunten, K. W., Ph.D. McG. Instr. 3 Assts.

Classics

Neville, K. P. R., M.A. Harv., Ph.D. Corn. Prof. Auden, H. W., M.A. Camb. Prof. Pemberton, R. E. K., M.A. Camb.

Ralph, J. D., A.B. Asst. Prof. 1 Instr.

Economic and Polit. Science

Logan, H. A., B.A. Acad., Ph.D. Chic. Prof.

Reilly, E. E., B.S.A. Tor., M.S. Wis. Assoc. Prof.

Inman, M. K., B.A. Acad., M.A. Harv. Asst. Prof.

Perrin, F. E., B.A. Tor. (Law) Lectr. Carruthers, C. C., B.A., LL.B. (Comml. Law) Lectr. Elocution Walker, Jean I. Instr. English Tamblyn, W. F., M.A. Tor., Ph.D. Spenceley, J. A., B.A. Tor., M.A. Assoc. Prof. Albright, Evelyn, B.A. Tor., M.A. Chic. Asst. Prof. Neville, Jean T., M.A. Lectr. Liddicoatt, Doris, M.A. Lectr. Wrighton, Marion, B.A. Lectr. Milne, W. S., M.A. Tor. Instr. Instr. Stiling, F., M.A. French and Italian Bassett, M. E., B.A. Mich., A.M. Princeton Prof. Turville, Dorothy, Ph.D. Col. Asst. Prof. French and Spanish Collin, W. E., B. ès L. Toulouse, Asst. Prof. M.A. 2 Instrs. Geology Russell, J. W., M.A. McM. Prof. I Instr. German James, N. C., B.A. Tor., Ph.D. Halle, LL.D. Emer. Prof. Allen, R. A., M.A. Tor., Ph.D. Chic. Assoc. Prof. 2 Instrs. [Prof. Waller, C. C., M.A. Camb., D.D. History Dorland, A. G., B.A. Qu., M.A. Yale, Ph.D. Tor. Prof. Landon, F., M.A. Assoc. Prof. Maine, S. F., B.A., B.D. Vict., M.A. Chic. Asst. Prof. I Instr.

Perrin, F. E., B.A., K.C.

Library Science 2 Instrs. Mathematics and Astronomy Kingston, H. R., M.A. Qu., Ph.D. Patterson, W. J., M.A. Qu. Emer. Prof. Woods, A., M.A. Qu. Assoc. Prof. I Instr. Medicine, v. infra Philosophy and Psychology Liddy, R. L., Ph.D. Tor. Sage, G. B., M.A. Trin., D.D. Lectr. Physical Education Crocker, H. L., M.P.E. Springfield (men) Dir. Plumptre, Joyce, B.A. (women) Asst. **Physics** Dearle, R. C., B.A., Ph.D. Tor. Allen, R. L., M.A. Mt. All. Assoc. Prof. Foster, Willena, M.A. Tor. Asst. Prof. I Instr. Physiology Miller, F. R., M.A., M.B. Tor., M.D. Mun., F.R.S.C.

Laughton, N. B., B.A. Tor., M.Sc., Ph.D. Chic. Assoc. Prof. Secretarial Science

Keyes, M. Asst. Prof. 2 Assts. Zoology

Robertson, A. D., M.A. Tor. Prof. Battle, Helen, M.A., Ph.D. Tor. Asst. Prof.

3 Assts.

Lectr.

#### Medicine

(for subjects of first 2 vrs.—Anat., etc., v. supra)

**Anæsthetics** Jepson, G. L., M.D. Asst. Prof. 2 Assts. Medicine Macgregor, J. A., M.D. Emer. Prof. Hale, G. C., M.D., C.M. McG. Prof. Childs, J. R. N., M.D. Assoc. Prof. Campbell, F. J. H., B.A., M.D., M.R.C.P. Assoc. Prof. Hughes, F. W., M.D. Asst. Prof. Watson, E. M., M.D., M.R.C.P. Edin., M.Sc. Asst. Prof. 14 Instrs.

Obstetrics and Gynæcology Clegg, F. R., M.D. Assoc. Prof. Tew, W. P., M.B. Tor., F.R.C.S. Edin. Assoc. Prof. 2 Instrs.

Ophthalmol., Otol., Rhinol., and Laryngol.

Thompson, S., M.D., F.A.C.S. 3 Instrs.

Pathology and Bacteriology Fisher, J. H., M.Sc., M.D.

(Bact.) Prof. Luney, F. W., M.D., D.P.H. (Path.) Assoc. Prof.

5 Instrs.

Pediatrics

Tillmann, W. J., M.D. Prof. Lindsay, J. C., M.B. Tor.

Asst. Prof. Ferguson, J. I., M.D. Asst. Prof. 2 Instrs.

## AFFILIATED INSTITUTIONS

Assumption College, Sandwich, Ont. Principal, Prof. of Classics, V. L. Kennedy, M.A. Tor. 16 other Profs. of Arts subjects.

URSULINE COLLEGE, London, Ont. Dean and Prof. of Maths., Mother M. Immaculate, B.A. Tor. 13 other Profs. of Arts subjects.

Waterloo College, Waterloo, Ont. Dean, Prof. of Hist., W. C. Froats, M.A., B.Pæd. Tor. 12 others in Arts Dept.

The above three Colleges give the full 4-yr. Arts Courses.

ALMA COLLEGE, St. Thomas, Ont., is a Junior Coll., giving the first 2 yrs. in Arts only. Principal, P. S. Dobson, M.A. Ox. 8 other teachers.

HURON COLLEGE, London, Ont., is a theological coll. Principal, Prof. of Div. and Hebrew, Rev. C. C. Waller, M.A. Camb. and McG., D.D. Other teachers not on staff of the Univ.: Most Rev. Archbishop of Huron, D.D., Lectr. in Bib. Exeg.; F. Anderson, M.A., B.D., D.D. Ox., Prof. of Ch. Hist.; S. E. McKegney, M.C., M.A. Ox., Prof. of Ch. Hist.

#### GENERAL INFORMATION

Incorporated by an Act of the Provincial Legislature in 1878 as a College in connexion with the Church of England, the Univ. has become, under the

Pharmacology Crane, J. W., M.B. Tor. Waud, R. A., M.D., M.Sc., Ph.D.

Assoc. Prof. Chic.

I Demr.

Physiotherapy

McLean, W. J., M.B. Assoc. Prof. I Instr.

Psychiatry

Vrooman, F. S., M.B. Assoc. Prof. I Instr.

Public Health

Slack, A. J., Ph.C. Mass., M.D., D.P.H. Downham, W. S., M.D., D.P.H. Lectr.

Radiology McNeill, G., M.D., F.A.C.S. Prof.

I Instr.

Surgery Williams, H., M.D., F.R.S.C., F.A.C.S.

Prof. Wilson, J. C., M.D., F.A.C.S.

Assoc. Prof. Ramsay, G. A., M.D., F.A.C.S.

(Orthop. S.) Assoc. Prof. Busby, E. D., B.A., M.D., F.A.C.S. Asst. Prof.

5 Instrs.

provisions of amending Acts of 1908 and 1923, absolutely undenominational in its government, which is under provincial and municipal control. It consists of 3 Instns., the Coll. of Arts (University College), the Medical School, and the Institute of Public Health.

FACULTIES. Colleges of Arts, Medical School, Public Health.

Degree Courses. 4 yrs. (from Junr. Matricn.), B.A.; 5 yrs., B.Sc. (in Nursing); 1 or 2 yrs., M.A. and M.Sc.; 6 yrs., M.D. Attendance on part of the classes may be dispensed with by the Senate, but all students must have attended lectures in the Univ. for at least 2 yrs. before they can graduate. C.P.H.N., C.I.N. and C.H.A. courses (1 yr.) provided for graduate nurses.

The Libraries contain c. 75,000 vols. and several thousand pamphlets. The Barnett Collection contains many rarities dealing inter alia with Canadian and American history. The Shakespeariana number c. 1500 vols. and several thousand pamphlets.

Publications. Calendar (May); Report of Faculty of Public Health (May); Medical School Announcement (May); Univ. Gazette, weekly during term.

## THE YEAR 1930-31

EXTRA-MURAL WORK. Regularly carried on.

DEATH. C. R. Somerville, LL.D., member of Board of Governors since 1909, chairman 1914-20.

HONORARY DEGREES. LL.D.—Henry John Cody, William Hamilton Fyfe, William Moir Gartshore, John Alexander Macgregor.

STUDENTS. Full-time: total, 1033, including 3 graduates. Part-time: total, 123, including 22 graduates. Summer School, 130. Extra-mural, 103. Extension, 75.

DEGREES OBTAINED. B.A., 135; B.Sc., 2; M.A., 14; M.Sc., 2; M.D., 35; B.D., 4.

CERTIFICATES (NURSING). C.P.H.N., 12; C.H.A., 1; C.I.N., 1.

# NEWFOUNDLAND MEMORIAL UNIVER-SITY COLLEGE AND NORMAL SCHOOL, ST. JOHN'S

PRESIDENT. J. L. Paton, M.A. Camb.

PROFESSORS. Hatcher, A. G., M.A. McG. (Maths.); Hunter, A. C., M.A. Ox., B.A. Lond., D. ès L. Paris (Engl. and French); Hogg, J. C., M.A. Camb. (Chem.); Sleggs, G. F., M.Sc. Liv. (Biol.); Harling, R. T., B.Sc. Lond. (Physics); McGrath, Miss H., M.A. Tor. (English, Latin); Avis, Miss M., B.A. Lond. (French, Spanish).

Lecturers. Fraser, A. M., M.A. Edin. (Hist. and Econ.); Hunter, Mrs. A. C., M.A. Denver (Spanish and French); Knowling, Mrs. P. H. (Bot.); MacIntosh, C. D. A., B.Eng. Nov. Sc. (Engin.).

PRINCIPAL OF NORMAL SCHOOL. S. P. Whiteway, B.Sc. Columbia, LL.D. Mt. All.

The College, built by the Govt. as a War Memorial, was opened in 1924.

The curriculum covers the first two years of the Univ. Courses in Arts, Pure Sci., Med., and the first 3 yrs. in Engin. To students who have completed the work for the first and second years in the Coll. third-year status is granted by the following Univs.: (1) All the Univs. of the maritime Provs. (2) Toronto, in Arts. (3) Columbia, Harvard. McGill recognizes the first year's course of the Coll. as qualifying for admission to second-year courses, and is prepared to consider on its merits the case of any student who has completed his second year at the Coll. who may apply for admission to third-year status.

Admission. Junior Matrica. of the Newfd. Council of Higher Educa., conducted by Coll. of Preceptors, London, or equivt.

FEES. For full course, \$50 p.a.

Extra-mural Courses are provided in most Arts and Science subjects, also in Navigation, Mechanical Drawing, Building Construction, Marine Engineering, Chemistry, Pharmacy, Art, and Courses for Nurses.

A SUMMER SCHOOL, specially designed for teachers, is held in July.

The Library, 6000 vols., including gift from Rev. Dr. G. J. Bond of books of late Sir Robert Bond, sometime Premier of Newfd.

Scholarships. Three Leaving Schol'ps. of \$300 have been specially endowed. A yearly Scholarship of \$500 is given by the Internat. Power Paper Co. to the first student in Engin. A students' Loan Fund has been founded. The Carnegie Corporation have made grant of \$7500 to the Trustees to enable them to make grants in aid to students in the Coll.

Acadia offers annually one schol'p. of \$125, and Mt. Allison one of \$125 and one of \$62.50. These schol'ps. are tenable for 2 yrs. Dalhousie offers annually one schol'p. of \$200, tenable for one year.

Students of the College are eligible for Rhodes Scholarships.

## THE YEAR 1930-31

BENEFACTION. v. supra under Scholarships.

Students. Full-time: total, 121. Part-time: total, 16.

## THE IMPERIAL COLLEGE OF TROPICAL AGRICULTURE, ST. AUGUSTINE, TRINIDAD

Cable Address: "Stomata," Port-of-Spain.

CHAIRMAN OF THE GOVERNING BODY-Sir JAMES CURRIE, K.B.E., C.M.G., M.A.

VICE-CHAIRMAN—Lieut.-Col. Sir David Prain, C.M.G., C.I.E., LL.D., F.R.S.

PRINCIPAL—GEOFFREY EVANS, C.I.E., M.A. Dip.Agr.

COMMISSIONER OF AGRICULTURE—Prof. H. A. BALLOU, M.Sc.

Assistant Commissioner of Agriculture—G. A. Jones, Dip.Agric. Bangor.

SECRETARY—Sir ALGERNON ASPINALL, C.M.G., C.B.E., B.A., 14 Trinity Square, London, E.C.3.

LIBRARIAN-G. G. GIANETTI, M.A., Dip.Agr. (Econ.).

#### PROFESSORS AND LECTURERS

Agriculture [Prof. Wood, R. Cecil, M.A., Dip.Agr. Paterson, D. D., B.Sc. Agric. and For. Edin. Lectr.

Botany and Genetics

Cheesman, E. E., M.Sc. Lond., A.R.C.S. Prof. Hunter, R. E., B.Sc. Lectr.

Chemistry and Soil Science Hardy, F., M.A., Dip.Agr. Camb. Prof.

Lecturers:

Turner, P. E., B.Sc. Lond., F.I.C. (Seconded)

Duthie, D. W., M.A., B.Sc. Aberd. Economics

Shephard. C. Y., B.Sc. (Econ.) Prof.

Mycology and Bacteriology Briton-Jones, H. R., D.Sc. Lond., Prof.

Ph.D. Briant, A. K., M.A., Dip.Agric.,

A.I.C.T.A. Lectr.

## Sanitation and Tropical Hygiene Seagar, E. A., M.B., Ch.B., D.T.M. Prof.

Sugar Technology

Davies, J. G., D.I.C.T.A.

Asst. Technologist. Veterinary Science [Lectr.

Metivier, Capt. H. V. M., O.B.E., B.Sc.Vet.Sc. Lond., M.R.C.V.S.

Zoology and Entomology [Prof. Ballou, H. A., M.Sc. Mass. Agr. Coll. Urich, F.W., F.E.S., V.D. Asst. Prof.

Banana Research

Wardlaw, C. W., B.Sc., Ph.D., Pathologist. F.R.S.E. McGuire, L. P., M.Sc., Ph.D., D.I.C. Physiologist.

Cacao Research

Botanists: Pound, F. J., B.Sc. Lond.

Pyke, E. E., B.Sc. Lond.

McDonald, J. A., Dip.Agric., A.I.C.T.A. Chemist.

#### GENERAL INFORMATION

Incorporated in Sept. 1921 and reincorporated by Royal Charter on Nov. 23, 1926, the College aims at promoting the study of and conducting research in Tropical Agriculture in suitable surroundings and creating a body of British expert agriculturists well versed in the knowledge of the cultivation of land in the tropics, of chemists, and of scientific advisers possessing an intimate knowledge of the means of combating pests and diseases. The College buildings are at St. Augustine, near St. Joseph, Trinidad, on land granted by the Govt. of Trinidad and Tobago. The Imperial Dept. of Agric., which was founded in 1898 and was amalgamated with the Coll. on April 1, 1922, is now known as the Advisory Dept. of the Imperial Coll. of Tropical Agriculture, and is administered by the Commissioner of Agric. The post of Commissioner of Agric. was separated from that of Principal of the Coll. as from April 1, 1927, and is now held by the Prof. of Entomology. He serves as a Liaison Officer between the Coll. and the several island govts. He supervises the botanic and experiment stations located at St. Vincent, St. Lucia, Dominica, Montserrat, Antigua, St. Kitts-Nevis, and the Virgin Islands, and advises the Govt. of Jamaica, British Guiana, Trinidad, British Honduras, the Bahamas, and Bermuda in agricultural matters, including the teaching of agric. in schools. The Staff was strengthened by the appointment on July 1, 1929, of an Asst. Commissioner of Agric. On the transfer of the headquarters of the Dept. to Trinidad in Sept. 1922 the services of all the officers were retained on the staff of the Coll., and remain available for the work of the Dept.

RECENT DEVELOPMENTS. The Foundation Stone of New Buildings and Laboratories was laid by Sir Samuel Wilson, Governor of Trinidad and Tobago, on January 14, 1924. An Instructional sugar factory, towards which British sugar machinery manufacturers are contributing plant worth £20,000, was opened in 1925. A Low Temperature Research Station for work on bananas and other tropical fruits was completed in September 1929. It is financed by the Empire Marketing Board. An Agricultural Field Office, and a new Chemical Block, in which the Dept. of Sugar Technology is also housed, were completed in August 1929. The Milner Hostel and College Dining Hall were completed in 1927.

The income of the College is derived from contributions by the principal West Indian colonies, Nigeria, the Gold Coast, Sierra Leone, the Empire Marketing Board, the Empire Cotton Corporation, and the British Cotton Growing Association.

The academic year extends from October 1 to June 30.

Courses. (r) Three-years' Diploma Course for giving a thorough training in the science and practice of T.A. to students intending to become tropical planters, investigators, or experts in different branches of Agr. Science or Technology; (2) one-year course in elementary Agr. Science for students unable to afford (r), with some practical acquaintance with the scientific side of tropical planting and the more up-to-date and efficient methods of production and management; (3) courses for Agr. officers selected for Colonial service in T.A. departments.

Post-graduate Research. Facilities are provided for work in connexion with problems arising in T.A., and more especially those connected with plant pathology, agronomy, physiological botany, and sugar technology.

Tuttion Fees: £50 p.a., but a limited number of students from contributing Colonies and industries are admitted, on the nomination of the respective local Govts. and industries, without the payment of tuition fees; other students from contributing Colonies, £25 p.a.; Foreign Students, £100 p.a.

Publications. Calendar (Oct.); Tropical Agriculture (monthly).

## THE YEAR 1930-31

STUDENTS. Full-time, 45; graduates, 21; preparing for diploma, 17; special course, 5. Refresher Course Students, 2; Diplomas obtained, 2.

# THE UNIVERSITIES OF AUSTRALIA

Adelaide Melbourne Queensland, Brisbane
Sydney Tasmania, Hobart Western Australia, Perth

#### GENERAL DESCRIPTION

[Revised by Prof. J. T. Wilson, M.A., LL.D., M.B., F.R.S., St. John's College, Cambridge, representing Australia on the Executive Committee of the Universities Bureau.]

Each State of the Commonwealth of Australia possesses a University in its capital city. Geographically they are by no means near neighbours. Those most widely separated—at Brisbane and Perth respectively—are effectively not less than 3000 miles apart; whilst to visit even the nearest sister University involves in each case a journey of some 500 miles.

Nevertheless these Universities form a relatively homogeneous group owing to their general similarity of origin and constitution and to their relationship to the communities which they serve. All of them owe their establishment to Acts of the State Legislatures carried through in response to popular demands. They are not, however, "State Universities" in the American sense, but, like the British Universities generally, are, by statute and Royal Charter, self-governing academic corporations.

Underlying this general uniformity of type there are not a few individual differences and variations. These may be referred to several factors: differences in dates of foundation (1850–1911) necessarily determine more or less the stage and degree of academic development actually reached; also, the academic ideas current at different foundation periods have undoubtedly impressed themselves on the academic structure and development of both older and younger Universities. Further, another obviously important differentiating factor has been that of inequality of material resources available, both from private endowment and from State subsidy—the latter being naturally dependent in large measure on the extent of the population of the State concerned.

RESIDENTIAL COLLEGES. A residential University of the traditional Oxford and Cambridge type was without doubt the ideal in the minds of the founders of the first Australian Universities. But they recognized clearly that the accepted secular basis of the civil government precluded the attempt at its full realization. Accordingly, a compromise was effected by the statutory allocation of areas of the University domains to be placed at the disposal of the leading religious denominations for the establishment of independent Colleges "within the University," to provide for residence and religious supervision of matriculated students of the University. Some other assistance in the way of endowment was also afforded.

Colleges of essentially similar character have since been set up in all the later founded Universities (with the exception, so far, of Tasmania). In addition, residential Colleges for women, of wholly undenominational character, have been founded in Sydney and in Queensland, and Colleges or Halls of residence for women on a denominational basis have been established in Sydney and Melbourne.

The Colleges and Halls of residence thus far established are:

Sydney—St. Paul's (1854, C. of E.); St. John's (1857, R.C.); St. Andrew's (1867, Presb.); The Women's College (1890, Undenom.); Wesley (1910, Meth.); Sancta Sophia (1929, R.C. for women).

Melbourne—Trinity (1872, C. of E.); Ormond (1879, Presb.); Queen's (1888, Meth.); Newman (1916, R.C.); Associated with Trinity and Newman respectively are Janet Clarke Hall (1886) and St. Mary's Hall, for women students.

ADELAIDE—St. Mark's (1925, C. of E.); St. Andrew's (1928, Presb.).

QUEENSLAND—Emmanuel (1912, Presb.); St. John's (1912, C. of E.); King's (1912, Meth.); Women's Coll. (1914, Undenom.); St. Leo's (1917, R.C.).

WESTERN AUSTRALIA—St. George's (1931, C. of E.).

All the Colleges possess their own independent governing bodies. In those under denominational control both clerical and lay elements are

represented, frequently in definite proportions.

Even in the older Universities of Sydney and Melbourne, where the College system is most strongly developed, only a comparatively small minority of the students are members of Colleges. Owing to the concentration of population in the capital cities of Australia, together with the fact that University students are largely drawn from the urban and suburban elements, the majority of the undergraduates reside in their own homes. In Sydney, and probably also in Melbourne, the collegiate students form only about fifteen per cent of the whole undergraduate body. Nevertheless, the influence of the Colleges on the general life of the University, intellectual, social, and athletic, is much more real and effective than their numbers would suggest.

Constitution of Universities. A. Governing bodies. In their statutory constitution the governing bodies of all the Australian Universities present a generally similar composite character, whilst differing in the proportions of the component elements. Their membership varies in number from 18 to 31. In every case there is a substantial proportion of representatives elected by the general body of graduates, varying from one-third to more than one-half of the total membership, but only in two cases (Adel. and W.A.) does it form the preponderant element. In every University there is now a more or less direct representation of the State on the governing body, either by nomination by the Governor-in-Council or by election by the Houses of Parliament, and in two cases by ex officio representation of the State Ministry of Education. In the more recently founded Universities the representation of the State Government is strong; in one instance it is equal to the academic, and in another it is even slightly preponderant.

The academic representative element invariably includes representatives of the teaching staff, though only in Sydney and Melbourne by independent statutory right. In most cases their number is by ordinance limited to three, elected as part of the general representation of the academic body by the graduates.

The Melbourne University Act of 1923 introduced certain novel provisions, namely, that the Government nominees shall include representatives not only of Parliament but of manufacturing, commercial, agricultural, and industrial interests, as well as a representative of the technical schools; it also provided that two Heads of Colleges and two elected representatives of the undergraduate body shall have seats on the governing body.

The governing body in the Australian Universities is designated either the "Senate" (Syd., Queens., W. Aust.), or "Council" (Melb., Adel., Tas.).

B. Graduate academic body. As in the British Universities generally, there is in each of the Australian Universities another statutory academic body, consisting in the main, though not in all cases exclusively, of the general body of graduates (usually of at least three years' standing). In Queensland the Governor-in-Council may appoint as members of this body one representative of "any commercial, industrial, scientific, professional, or educational society, institution, or association within Queensland." In the University of Western Australia the "Guild" of undergraduates has the right of electing one member of this body.

In those Universities in which the governing body is entitled "Senate" the graduate body is called either Convocation or Council. Where the governing body is styled "Council" the graduate body is called either Senate or (in Melb. since 1923) Convocation.

Whilst the main effective function of this body is its electoral choice of its own representatives on the governing body, it has also, in several Universities, powers of deliberation, approval, and confirmation in respect of matters submitted to it and in some instances of suggestion, but in no case of initiation of University legislation.

C. Other administrative bodies. The general routine of studies and discipline is usually controlled by a "Professorial Board," whilst the special curricula of studies are the immediate concern of the Faculties and special boards of studies. Matters of discipline are in one or two instances dealt with by a special Proctorial Board or Board of Discipline.

Admission. Attempts have been made to devise a common matricn., but have been given up. The reason lies in difference of policy as to the part to be taken by entrance examination as a qualifying test, and as to requisite subjects. Generally speaking, matriculation requirements include passing a recognized examn. (school-leaving, matricn., etc.) in English, another approved language (at Sydney, e.g., Latin, Greek, French, German, Italian, or Japanese), Mathematics, and one or more other subjects. Special facilities are offered for matriculation in some Univs. and in some faculties to persons who have attained the age of 25 yrs., provided (Sydney) they give evidence of distinct educational merit and are recommended by a three-fourths majority of the Faculty

of Arts and approved by the Senate. In Queensland and Western Australia (Arts) such persons are admitted on passing a special Adult Matriculation Examn. Owing partly to isolation by distance, migration of students from one University to another is not common. It would occur still more rarely were it not for the fact that several of the younger and smaller Universities do not yet provide opportunities for professional training in every direction, particularly in medicine. Hence it becomes necessary for some students, after one or two years' study in the University of their own State, to betake themselves to one of the older and larger Universities in order to prosecute their studies along definitely professional lines.

Although the requirements for entrance at the various Universities are not completely uniform, all possible reciprocity is exercised in the matter of such interchange of students, whether from Australian or

British Universities.

THE ACADEMIC YEAR. Undergraduate status is ordinarily defined in terms of academic years of study, e.g. "first year," "fifth year," etc.

The academic year begins in March and ends in Nov. or Dec. It is subdivided into Terms, usually three which may or may not include

subdivided into Terms, usually three, which may or may not include special examination periods. The Universities of Melbourne and Tasmania have each four Terms, but the fourth Term in these cases is devoted to examinations.

Although the inclusive dates of the terminal periods show some discrepancy in the different Universities, arrangements have been made to secure the coincidence of two of the inter-term vacations.

Periods of Study. The Univ. requires not less than 3 yrs.' study for a B.A. or B.Sc.—4 yrs. if the B.Sc. is taken with Honours. The curriculum for the first degree in Med., formerly 5 yrs., has been lengthened in Melbourne to 5\frac{2}{3}, in Sydney and Adelaide to 6. The time needed to graduate in law may vary; the Melbourne and Sydney courses take 4 yrs., but West. Aust. allows Arts graduates to do their law in 3 yrs. To graduate in Engin. requires 4 yrs., in West. Aust. 5 yrs.; in Vet. Science, in Agric., in Economics, and in Dentistry also 4 yrs. (Adelaide, 5 yrs.), subject to certain minor variations; in Architecture, 5 yrs.

FEES AND COST OF LIVING. The cost of living varies a good deal in different parts of Australia. A student will probably not notice much difference between Sydney and Melbourne in this respect. But anywhere he will find that £200 a year gives him quite sufficient means, for the climate is benign and good food is plentiful. The style of living everywhere is unostentatious. Decent board and lodging should not cost more than 35s. a week. Meals at the cost of 6d. to 2s. 6d. can generally be obtained at the University by members of "Unions" and others. Sydney Univ. Union has a Refectory seating 450, and one-half of it is open to all members of the University and their guests. Adelaide Univ. has a Refectory seating 400, and Melbourne has a Union building and separate dining-rooms seating upwards of 350. Western Australia is at present using one-half of dining-rooms which could accommodate about 200. A developed Union at an Australian University also pro-

vides all the comforts of a non-residential Club for about £1 a year. Rowing, football, cricket, and other games may be had in the Sports

Clubs on correspondingly easy terms.

Residence at a College is optional. College fees for residence and tuition range from 80 to 120 gs. per annum. Thus Wesley College, Sydney (Methodist), charges 28 gs. a term for resident students: Ormond, Melbourne (Presb.), from 110 to 120 gs. a year for residence during terms, according to the course being taken. St. John's, Queensland (Anglican), has fees of £21 per term, and the rates at the other Queensland Colls. are practically the same. The fees at St. Andrew's and at St. Mark's College, Adelaide, range from 110 to 125 gs. per annum. St. George's, Western Australia, charges £90 per annum. Special arrangements can always be made for residence during vacations; for an example, Ormond then charges 2½ gs. a week. Many men live in College on a total income of not more than £150 a year; it is doubtful if any will spend double that amount. There are few rich students and no tradition of expensive living among College men, no charming but costly ancient customs. The assistance from Scholarships and Bursaries is generous.

A list of Univ. Fees payable at Adelaide, Melbourne, and Sydney is given below. Queensland has composition fees for complete degree courses, which are from 12 to 18 gs. a year in Arts, 20 gs. in Science, and 21 gs. in Engineering, in addition to moderate fees for examn. and graduation. The corresponding fees at Tasmania are £15 to £20 in Arts, £20 in Science, £22, 10s. in Engineering. W. Australia charges fees for examns., laboratory materials, degrees, and certifs., but tuition fees only to overseas students.

Adelaide. Matriculation, £1:1s.; Ad Eundem Statum, £2:2s.; Admission to Degrees: Arts, Economics, Science, M.E., LL.M., £5:5s.; LL.D., M.D., M.S., D.D.Sc., Mus.Doc., D.Sc., D.Litt., £10:10s.; LL.B., £7:7s.; B.E., £3:3s.; Mus.Bac., £4:4s.; Diplomas in Educ., Commerce, Music, £2:2s. Degree Courses in Arts about £65; Economics about £57; Science about £125; Engineering, £135; Law about £90; Medical, 6 years, £240 (excluding Hospital, £56:14s., and Midwifery Clinics, £5:5s.); Dental, 5 years, £250; Music, £53:11s.; Tuition Conservatorium, £14:14s. minimum.

Melbourne. Matricn., 2 gs.; Degree, 10 gs.; Degree Courses in Arts, 3 yrs., about 72 gs.; Science, 30 gs. per yr.; Agric., 4 yrs., 81 gs.; Laws, 4 yrs., about 102 gs.; Med., 5\frac{2}{3} yrs., £258 (including Hospl. Fees); Engin., 4 yrs., 120 gs.; Vet. Sc., 4 yrs., £100; Music, 3 yrs., at conserva-

torium, 32 gs. p.a.

Sydney. Matricn., £3; Degree in Arts, Econ., Sc., Agric., or Vet. Sc., £3; M.D. and M.S., £20; other Degrees, £10; Degree Courses in Arts, 3 yrs., £75; Econ., 4 yrs., £96; Law, £90 (Arts subjects additional); Med., £234 (excluding Hospl. Attendance, 21 gs., and practical Midwifery, 5 gs.); Dent., 4 yrs., £150 (excluding Dent. Hospl. £15 p.a.); Science, 3 yrs., £99; Engin., 4 yrs., £154 (Min. and Met., £168); Agric., 4 yrs., £118: 10s.; Vet. Sc., 4 yrs., £114; Archit., 5 yrs., £182.

CURRICULA AND COURSES OF UNIVERSITY STUDIES. In general it

may be said that the character and range of studies in the Australian Universities correspond fairly well with those of British Universities of comparable size and organization. There is, however, one notable exception: in accordance with the exclusively secular character of the Universities of Australia a Faculty of Theology is lacking in all of them, and no degrees in Divinity are obtainable in any Australian University. More or less associated with this situation is the absence of any courses of study in Oriental languages or literature, with the exception of Japanese, a Professorship for which exists in Sydney and in connexion with which lectures on Oriental history are also delivered. (A certain amount of teaching in Oriental languages is provided in Theological schools maintained by some of the religious denominations)

Subdivision of University studies into groups, under Faculties and Boards of Studies, has been carried further than is usually the case in British Universities. There has thus been a considerable accession of new Faculties beyond those traditionally recognized. The general principle has been largely, though not consistently, adopted that any definite and distinct curriculum leading up to the award of a distinctive degree or degrees, warrants the creation of a separate and distinct Faculty as a Board for the regulation of the studies and examinations

in such a curriculum.

Concurrently with this development there has been a marked tendency to the specialization and multiplication of distinctive degrees, so that in some cases we find that even within the limits of a single Faculty several distinctive degrees are obtainable along more or less differentiated lines of study. A conspicuous instance of this is seen in the Faculty of Engineering in Melbourne, in which no fewer than eleven different degrees may be awarded as Bachelors and Masters of different branches of Engineering Science, Civil, Mechanical, Electrical, Mining, and Metallurgical, besides a Doctorate of Engineering Science. As many as thirteen different Faculties are found among the various Universities with a maximum number in Melbourne of eleven, or twelve if the Board of Studies in Architecture be included. In Sydney there are ten Faculties and in Adelaide nine, if the Board of Studies in Commerce be included.

Each University possesses Faculties of Arts, Science, and Engineering (designated "Applied Science" in Adelaide), and also of Law, although in Queensland this is not yet organized as a teaching school. All except Tasmania have Schools of Agriculture, although in Western Australia it is not a separate Faculty, but is included along with Veterinary Science in the Faculty of Science. Whilst in Western Australia the Department of Veterinary Science is, as just stated, included in the Faculty of Science, Melbourne and Sydney have schools organized under their separate Faculties of Veterinary Science. The legal qualification for Veterinary practice in Victoria is gained through the course of study in the University of Melbourne. In N.S.W. and Western Australia the law requires such qualifications as practically involve the University curriculum in Veterinary Science.

The subject of Economics is represented by separate Professorships in each University, except in Queensland and Western Australia, where

there are joint chairs of History and Economics. In Sydney there is a special Faculty of Economics, but, as there is no Faculty of Commerce, it includes all the various branches of both Economic and Commercial Studies. In Melbourne, Queensland, and Tasmania there are Faculties of Commerce, and in Adelaide a Board of Commercial Studies, under all of which the subject of Economics finds its primary orientation along with the various branches of Commercial theory and practice. Economics, however, is ordinarily included also as a subject which may be taken for an Arts degree.

In Sydney there is a fully organized Faculty of Architecture, and in Melbourne a Board of Studies in Architecture with a teaching school, but as yet no chair in that subject.

Melbourne and Adelaide have each a Faculty of Music with a full Professorship and a Conservatorium. In Sydney there is a Conservatorium entirely independent of the University.

Melbourne alone has a separate Faculty of Education in which a special University degreee of Master of Education (M.Ed.) is granted. The Faculty contains several representatives of the State Ministry of Education. In all the other Universities the subject of Education comes under the Faculty of Arts and enters into the composition of such alternative curricula for the Arts degrees as are specially adapted to the requirements of the professional training of teachers. Sydney, Melbourne, and Western Australia have Professors of Education who are also heads of the State Training Colleges. Special Diplomas in Education are obtainable in all the Universities, except Queensland and Tasmania, by University graduates (Syd. and Adel.) or by students who have qualified for a degree (W. Aust.) or have after matriculation pursued a three years' course of study (Melb.) and have had approved practical experience of teaching.

Professional Schools and Research Institutes. Each of the three older Universities, of Sydney, Melbourne, and Adelaide, possesses well organized and equipped professional schools under their Faculties of Medicine and Dentistry. These schools have long been, and are now, mainly responsible for the training of the medical and dental professions in Australia, whilst not a few of their graduates may be found occupying responsible positions outside Australia. The teaching and research staffs of these schools are also now largely recruited from the ranks of their own more distinguished graduates, but they are continually being reinforced by other teachers of distinction from outside Australia.

The relationship of the Medical Schools to the great general hospitals is intimate and effective. There is thus secured an extensive and varied clinical field, not only for undergraduate training, but in increasing measure for more advanced and specialized post-graduate study and research in conjunction with the scientific laboratories of the Universities and other Research Institutions. Such post-graduate work in various departments of specialized study now finds manifold guidance, and receives full official recognition, in connexion with the Diplomas awarded after appropriate courses of study. Amongst these may be specified the Diploma in Psychiatry, the Australian Diplomas

in Public Health and Tropical Medicine, and of Tropical Hygiene from the Federal School of Public Health, and Tropical Medicine in the University of Sydney, and more or less corresponding courses in the University of Melbourne, which also grants Diplomas in Ophthalmology, Laryngology, Otology, and Gynæcology and Obstetrics.

There are various University and associated Research Institutes in Adelaide, Melbourne, and Sydney, where investigation is carried on into problems of Pathology, Bacteriology, Pharmacology, Radiotherapy,

Cancer Research, Animal Nutrition, Entomology, etc.

DIPLOMAS. Numerous University Diplomas are now obtainable in various branches of study in the Universities of Australia. They may be classed under three categories: (a) those obtainable by graduates as supplementary qualifications in particular subjects after special courses of study. To this group belong the post-graduate medical diplomas already mentioned and also certain Diplomas in Education; (b) Diplomas obtainable by non-graduates after shorter or less comprehensive courses of study than those required for a University degree covering the same subject. This group includes certain Diplomas in Commerce, Public Administration, Agriculture, Engineering, and Music; (c) Diplomas in subjects, usually of limited range, for which no special University degree is available, e.g., Journalism and Anthropology.

EVENING LECTURES. Full University courses of evening lectures in Arts, and in some cases in Science, subjects are provided by the Universities of Adelaide, Melbourne, Sydney, and Western Australia to enable a degree in Arts to be obtained by persons whose occupations preclude their attendance at the University during the day.

EXTERNAL STUDENTS. Under the Regulations of the Universities of Melbourne, Queensland, and Western Australia attendance at lectures is not compulsory except in specified subjects. (These naturally include most scientific subjects which require laboratory facilities.) It is therefore possible, though not common, to obtain an Arts degree as a purely external student. In Western Australia correspondence classes for the benefit of external students are carried on by the University.

In the Universities of Adelaide, Sydney, and Tasmania exemption from one year's attendance on lectures may be granted in special cases in which reasonable cause is shown.

In all the Universities (except Queensland) there is provision for the recognition, as qualifying courses for degrees, of various courses of instruction in affiliated institutions, such as Technical Schools and Colleges.

University Extension Lectures were instituted at Sydney Univ. in 1886 and at Melbourne in 1891. In 1913 Workers' Educational Associations were formed in all the States to give effect to a movement for bringing the Univs. into closer relationship with the masses of the people. The movement was fostered by State grants and grew rapidly. Each Univ. co-operates with the W.E.A. in the formation of a joint committee, which appoints tutors and supervises the work with the

help of a Univ. officer—the Director of Tutorial classes. A federal W.E.A. for Australia has its central office in Melbourne. The total number of students throughout Australia is about 6000, the greater number taking three-years' courses. In addition to these courses a great many preparatory classes, study circles and summer schools are organized by the Assocn., numerous courses of public lectures are delivered, educational conferences promoted, and an extensive book service is carried on. A correspondence study department has been inaugurated in connexion with the Univs. of Queensland and W.A. In Western Australia provision has been made for extension lectures in Perth and suburbs and in country centres.

FREE PASSAGES TO EUROPE. The following free first-class passages are granted annually to Australian and New Zealand Univs. for graduates proceeding to Europe to continue their studies: Adelaide, 3; Melb., 4; Queensland, 3; Syd., 4; Tasm., 2; W. Aust., 3; N.Z., 3; available by any of the following Lines: Aberdeen, Blue Funnel, Orient, P. & O., and, for N.Z. graduates only, N.Z. Shipping and Shaw, Savill & Albion.

Australian Students in the Home Universities, v. Appendix XXII.

#### CONFERENCE

After a conference held at Sydney in May 1920 the Australian Univs. established a Standing Advisory Committee to deal with matters of common interest. The headquarters of the Committee are Melbourne University. The Chancellor of Melbourne Univ. acts as Convener of the Committee, and the Registrar as Honorary Secretary.

A meeting of the Standing Advisory Committee or a Universities' Conference has been held annually since 1921. Among the subjects discussed at the Conference of Univs. held in Sydney in Aug. 1930 were a number of matters arising out of previous meetings and also the following: Relations between Univs. and Committees of Selection in England, proposals for the exchange of students with Germany, proposed Hall of Residence in London for Australian students, self-government by the undergraduates, customs difficulties, the censorship of imported literature, matriculation requirements, facilities for study of modern geographic knowledge and method, the broadcasting of University lectures, the Fourth Congress of Universities of the Empire and the Universities Bureau of the British Empire.

No report has been received of the Conference held in 1931.

STATISTICS of University teachers, students, and finance are published annually by the Commonwealth Bureau of Census and Statistics in the official Year-Book.

## UNIVERSITY OF ADELAIDE

VISITOR-H.E. THE GOVERNOR.

CHANCELLOR—Hon. Sir G. J. R. MURRAY, K.C.M.G., B.A., LL.M., Lieut.-Governor and Chief Justice.

VICE-CHANCELLOR-Sir WILLIAM MITCHELL, K.C.M.G., M.A., D.Sc.

REGISTRAR-F. W. EARDLEY, B.A.

LIBRARIAN-....

#### PROFESSORS, LECTURERS, ETC.

Accountancy

Mills, E. W., A.C.U.A., C.A. Aust. Lectr. Ferres, L. W., C.A. Aust. Lectr. 2 Tutors.

Agriculture, v. also infra Waite Agric. Res. Inst.

Richardson, A. E. V., D.Sc. Melb., M.A. Waite Prof. Prescott, J. A., M.Sc. Manc.

(Agric. Chem.) Waite Prof.

Animal Products, v. infra Animal Products Res. Foundation

Anatomy [Elder Prof. Wilkinson, H. J., M.D. Syd., B.A. Mead, C. S., B.A., M.B., B.S.

Lectr.

5 Hon. Demrs.

Bio-Chemistry

Martin, Sir Chas. J., C.M.G., M.B., D.Sc. Lond., D.Sc. Melb., F.R.S. Prof. Mitchell, M. L., B.Sc., M.Sc. Camb.

1 Demr., 1 Res. Asst. (Cancer).

Botany [Hon. Prof. Johnston, T. H., M.A., D.Sc. Syd. Wood, J. G., M.Sc. Lectr. Black, J. M. (Syst. B.) Hon. Lectr. Colquhoun, T. T., M.Sc. Melb.

Asst. Lectr. & Demr.

Chemistry

Macbeth, A. K., M.A. St. And., D.Sc. Belf., F.I.C.

Angas Prof. Cooke, W. T., D.Sc. Lectr. Pennycuick, S. W., D.Sc. (Phys. C.) Lectr.

Finlayson, H. H.

Asst. Lectr. & Demr.
Winzor, F. L., B.Sc. Evg. Lectr.

Classics and Comp. Philol. and Lit.

FitzHerbert, J. A., M.A. Camb., B.A. Syd. Hughes Prof. Hollidge, D. H., M.A. Lectr.

Commerce, v. also Acctcy.

Brebner, C. C., LL.B. (Coml. Law) Lectr. Mayo, H., LL.B. (Coml. Law)

Lectr. Wainwright, J. W., B.A. (Public

Admin.) Lectr. Melville, Prof. L. G., B.Ec. Syd.,

F.I.A. (Statistics) Lectr. Browne, C. Harding, A.C.U.A.,

F.C.P.A. (Com. Practice)
Lectr.

3 Tutors.

Dentistry, v. infra

Economics, v. also Com.

Melville, L. G., B.Ec. Syd., F.I.A. Prof.

	-
Fenner, C. A. E., D.Sc. (Geog.)	Mathematics
Lectr.	Wilton, J. R., M.A., Sc.D. Camb.,
2 Tutors.	D.Sc. Elder Prof.
	Sanders, H. W., B.A. Camb. Lectr.
Education [Lectr.	Statton T W D So Aget Toote
Schulz, A. J., Ph.D. Zür., M.A.	Statton, J. W., B.Sc. Asst. Lectr.
Engineering, v. also Mining	Medicine, v. infra
Chapman, R. W., C.M.G., M.A.,	Mining Engineering
B.C.E. Melb., M.I.E. Aust.	Gartrell, H. W., M.A. Col., B.A.,
Prof.	B.Sc. Lectr.
Robin, R. C., B.E. Lectr. & Demr.	Music [Elder Prof.
I Demr. in Metallogr.	
	Davies, E. Harold, Mus.Doc.
Engineering, Elec.	Philosophy
Clark, E. V., B.Sc., M.I.C.E. Lectr.	Stewart, J. McKellar, M.A., D. Phil.
English Lang. and Literature	Edin. Hughes Prof.
Tury Prof	Davey, Constance M., M.A., Ph.D.
Kirwood, A. E. M., M.A. Q'ld.	Lond. (Psychol.) Evg. Lectr.
Lectr.	Barbour, R. R. P., B.A. Ox.
Bald, R. C., Ph.D. Camb., LL.B.	(Ethics) Eva Lectr
Lectr.	(Ethics) Evg. Lectr.  Physics [Elder Prof.
French	Physics [Elder Prof.
	Grant, Kerr, M.Sc. Melb.
Crampton, J., B.A. Lond. Lectr.	Burdon, R. S., B.Sc. Lectr.
Crampton, Mary H. St. Cl., M.A.	Fuller, G. R., B.Sc. Asst. Lectr.
Asst. Lectr.	2 Demrs., I Asst. Demr.
Geology and Mineralogy	Physiology, General, v. Bio-
Mawson, Sir Douglas, O.B.E.,	Chemistry
F.R.S., B.E., B.Sc. Syd.,	Physiol., Human and Pharmacol.
D.Sc. Prof.	Hicks, C. Stanton, M.Sc., M.B.,
Madigan, C. T., M.A. Ox., B.Sc.	Ch.B. N.Z., Ph.D. Camb.,
Lectr.	F.I.C. Lond. Prof.
Alderman, A. R., M.Sc. Evg. Lectr.	Matters, R. F., M.D., Ch.M. Syd.,
German [Tutor.	F.R.C.S. Edin., D.G.O. Vienna
Schulz, A. J., Ph.D. Zür., M.A.	
History, Modern	Asst. Lectr. and Demr.
	Zoology
Hancock, W. K., B.A. Melb. Prof.	Johnston, T. Harvey, M.A., D.Sc.
Oldham, W., M.A. Lectr.	Syd. Prof.
Law	
Campbell, A. L., B.A., B.E. Syd.	Medicine
Bonython Prof.	(for subjects of first 2 yrs.—Anat.,
Reed, G. S., LL.B. (Evidence and	etc., v. supra)
Procedure) Lectr	etc., v. supra)
Benham, E. W., LL.B. (Property	Anæsthetics [Instr.
L.) Lectr.	Brown, Gilbert, M.B., Ch.B. Liv.
Reed, G. S., LL.B. (Private Inter-	Diseases of Children, Med.
national Law) Lectr.	Mayo, Helen M., M.D., B.S.
Brebner, C. C., LL.B. (Roman L.)	Clin. Lectr.
Lectr.	Diseases of Children, Surg.
Mayo, H., LL.B. (Jurisprudence)	Gilbert, H., M.B., B.S. Melb.,
Lectr.	
Lecti.	F.R.C.S. Clin. Lectr.

Ear, Nose, and Throat [Lectr. Pulleine, R. H., M.B., Ch.M. Syd. Forensic Medicine

Rogers, R. S., M.A., M.D., Ch.M. Edin. Lectr.

Gynæcology and Obstetrics

Wilson, T. G., M.D. Syd., F.R.C.S. Edin. Way Lectr.

Tutors in Obstetrics:

Beard, J. R. S. G., M.B., B.S., F.R.C.S. Edin.

Matters, R. F., M.D., Ch.M. Syd., F.R.C.S. Edin., D.G.O. Vienna

Swift, B. H., M.B., B.S. Camb., F.R.C.S. Edin.

Materia Med. and Therap.

Fry, H. K., B.Sc., M.B., B.S. Lectr.

Medicine and Therap.

De Crespigny, C. T. C., M.D., B.S. Melb., M.R.C.P. Lectr. Hetzel, K.S., M.D., B.S., M.R.C.P. Lond. Tutor.

Medicine, Clinical Lectrs.:

Ray, W., B.Sc., M.B., B.S. Cowan, D. R. W., M.B., B.S.

Burston, S. R., M.B., B.S.

Medicine, Psychol. [Lectr. Downey, M. H., M.B., B.S. Melb.

Ophthalinic Surg.
Shorney, H. F., M.D. Melb.,
F.R.C.S. Gosse Lectr.

Pathology [Marks Prof.

Cleland, J. B., M.D. Syd. Bull, L. B., D.V.Sc. (Exper. Bact.)

Lectr. Hone, Effie J., M.B., B.S. Melb.

Demr.

Pharmacology, v. Physiology,

Human

Public Health & Preventive Med. Hone, F. S., B.A., M.B., B.S. Lectr. Surgical and Regional Anatomy Scott, M. L., M.B., M.S., F.R.C.S.

Surgery, Clinical

Newland, Sir Henry S., M.B., M.S., F.R.C.S. Lectr.

Messent, P. Santo, M.B., M.S., F.C.S.A. Tutor.

Clinical Lecturers:

Smeaton, B., M.B., B.S.

Jose, I. B., M.B., M.S., F.R.C.S. Scott, M. L., M.B., M.S., F.R.C.S. Edin.

Clinical Teachers:

The Staff of the Adelaide and of the Children's Hospls.

Surgery, Operative

Newland, Prof. Sir Henry S., M.B., M.S. Lectr.

#### Dentistry

Lectrs.:

Edwards, H. T. J., D.D.Sc. (Prosthetic D.).

Reid, F. W., B.Sc. (D. Metal.).

Eustace, J. L., B.D.S. (D. Mat. Med. and Therap.).

Moore, A. P. R., D.D.Sc. (D. Surg. and Path.).

Messent, P.S., M.B., M.S., F.C.S.A. (Surg.).

Southwood, A. R., M.D., M.S. (Med.).

Swan, F. M., L.D.S., M.A.C.D. Melb. (Operative Dentistry).

Begg, P. R., B.D.Sc. Melb. (Orthodontics) and Demr.

Brown, Gilbert, M.B., Ch.B. Liv. (Anæsthetics).

Campbell, T. D., D.D.Sc. (D. Anatomy).

Mead, C. S., B.A., M.B., B.S. (D. Anat.).
Demrs.:

Lawrence, G. O., B.D.Sc. Melb. (Operative Technique).

Brougham, L. A. M. (Prosthetic Technique).

Brazil-Smith, R. J., B.D.S. (Prosthetic D.) Instr.

#### Waite Agricultural Research Institute

Richardson, A. E. V., D.Sc. Melb., M.A. Waite Prof. & Director. Prescott, J. A., M.Sc. Manc. (Agr. Chem.) Waite Prof. Davidson, J., D.Sc. Liv. Entomologist. Plant Pathologists: Samuel, G., M.Sc. Garrett, S. D., B.A. Camb. Asst. Petrie, A. H. K., M.Sc., Ph.D. Plant Physiologist. Agronomists: Trumble, H. C., M.Ag.Sc. Melb. Gurney, H. C., B.Sc. Chemists: Piper, C. S., M.Sc. Best, R. J., M.Sc. Scott. A. E., M.Sc. Asst. Gallus, H. P. C., M.Sc. Asst. Phipps, I. F., B.Ag.Sc., M.Sc., Ph.D. Corn. Plant Geneticist. Davies, J. G., B.Sc., Ph.D.

Agrostologist.
Pike, K. A. Field Officer.
I Field Asst., I Tech. Asst., 6 Lab.
Attendants.

Officers of the Council for Sci. and Indust. Research: Taylor, J. K., B.A., M.Sc. Soil Survey Officer. Poole, H. G., M.Sc. Soil Chemist. Hosking, J.S., B.Sc. Asst. Chemist. Peirce, A. W., B.Sc.

Animal Nutrition Officer. Fraser, K. M., B.Ag.Sc.

Asst. Agronomist.

Bald, J. G., B.Ag.Sc.

Asst. Plant Pathologist.

Marshall, T. J., B.Sc.

Asst. Soil Surveyor. Hooper, P. D. Field Officer. I Analyst, 2 Research Students.

#### Animal Products Research Foundation

Martin, Sir Chas. J., C.M.G., M.B., D.Sc. Lond., D.Sc. Melb., Shef., Dub., LL.D. Edin., D.C.L. Durh., F.R.C.P., F.R.S. Director. Dawbarn, Miss M. C., M.Sc. (Thyroid Res.).

#### Tutorial Classes

Biaggini, E. G., B.A., Actg-Director, assisted by 16 tutors and 7 study circle leaders.

#### ASSOCIATED OR AFFILIATED INSTITUTIONS

RESIDENTIAL: St. Mark's College, under management of Church of England, but open to men of all denominations. Opened for students in March 1925. Master: A. Grenfell Price, M.A. Ox., Dip. in Ed.

St. Andrew's College, in connexion with the Presbyterian Church in South Australia, but prescribing no religious test, was opened for students in March 1928. Master: R. R. P. Barbour, B.A.

S. Australian School of Mines and Industries. President, Hon. Sir L. Bonython. Unites with the Univ. in providing courses and examns. in Mining, Metall., and Engin. The Chancellor is Chairman of the Joint Board.

ROSEWORTHY AGRICULTURAL COLLEGE. Affiliated for parts of the B.Ag.Sc. course for Agric. students.

Teaching Hospitals associated with Medical School. Adelaide General Hospital, 480 beds; Queen's Home (Maternity), 160 beds; Adelaide Children's Hospital, 120 beds.

#### GENERAL INFORMATION

The University was established by Act of the Provincial Legislature in 1874 with endowments of £20,000 each from Sir W. W. Hughes and Sir Thomas Elder and a land grant of 50,000 acres (subsequently repurchased by Govt. for £40,000), as well as a site of 5 acres in the city. The original site was increased

to 14 acres in 1927, and in 1929 an addnl. 13 acres adjoining were vested in the Univ. The Govt. also provides an annual subsidy of 5 per cent on endowments; the subsidy is limited to £20,000. In 1911 the State Parliament sanctioned an addnl. annual grant, and took power to appoint five addnl. members of the Council, which, until then, consisted of 20 elected by the Senate. The grants have been increased by the State Parliament from time to time and now amount to £44,400, excluding a grant of £8500 to the Waite Agric. Research Inst.

Endowments. In addition to the private endowments mentioned above the Univ. has received the following benefactions: Sir T. Elder, £75,000 in 1897; the Hon. J. H. Angas, £10,000; Mr. R. Barr Smith and the members of his family, £20,000 for the Library, and Mr. T. E. Barr Smith, £32,000 for a Library building. Mr. Peter Waite bequeathed extensive estates, including a mansion and approximately £55,000; Mrs. Jane Marks, £30,000; Mrs. A. M. Simpson and Miss A. F. Keith Sheridan, £20,000. The Hon. Sir Langdon Bonython has given £40,000 for a Great Hall, and £20,000 for the Chair of Law. The family of the late John Darling has provided £25,000 for buildings; Mrs. G. A. Jury, £12,000 for a Chair of English Literature; Sir Josiah Symon, £10,000 for the Lady Symon building, the women's portion of the University Union; Sir John Melrose, £10,000 for the Chemical Laboratory at the Waite Institute. The total value of the endowments is £593,329 and the income in 1930 was £109,221.

LIBRARY. Over 84,000 volumes. LABORATORIES, Biol., Bio-Chem., Botany, Chem., Geol., Histol., Pathol., Physics, Physiol., Pharmacol., and Zool. The Univ. includes the *Elder Conservatorium of Music*, which has a staff of 17, and it assists in the management of a Public Library, Museum, and Art Gallery.

Special Laboratories and Equipment. (1) The Waite Agricultural Research Institute (see App. XXIV. B. II.). (2) Field laboratory at Koonamore for investigation of plant regeneration in arid areas. (3) The Animal Nutrition Institute is within the Univ. grounds (see App. XXIV. B. II.).

COLLECTIONS OF INTEREST TO SPECIALIST SCHOLARS. Collection of Australian endoparasites. Prof. J. B. Cleland's collection of the higher Australian fungi (Basidiomycetes), by far the largest of its kind, is available for study by mycologists and forest pathologists. Collection of representative specimens from all the Australian opal fields. Anthropological collection of Australian skeletons. Collections of marsupial material.

Special Research Departments. The Sheridan Medical Research Foundation for the support of medical research. In 1922 Mrs. A. M. Simpson and Miss A. F. Keith Sheridan bequeathed property to the estimated value of £20,000 for the establishment of this foundation. The Animal Products Research Foundation, which conducts investigations in regard to the problems of animal nutrition, see Staff List supra. The Board of Anthropological Research engaged in Anthropological investigations concerning the aboriginals of South Australia. The Anti-Cancer Campaign Committee directs research into the cause and cure of cancer.

FACULTIES. Arts, Science, Law, Medicine, Dentistry, Music, Agric. Science, Applied Science (including Staff of S. Aus. School of Mines and Industries).

Degrees. Obtainable after 3 yrs.' course, B.A., B.Sc., Mus.Bac.; 4 yrs.', LL.B., B.E., B.Ag.Sc.; 5 yrs.', B.D.S.; 6 yrs.', M.B., B.S.

HIGHER DEGREES. Open to bachelors of 2 yrs.' standing, M.A., M.Sc., M.Ag.Sc., M.E., LL.M.; 3 yrs.', M.D., M.S., D.D.Sc., Mus.Doc.; 4 yrs.', D.Sc., L L.D., D.Litt.

DIPLOMAS. Applied Science (Mining, Metall., or Engin.—Civ., Elec., Mech., or Archit.), 4 yrs.' course; Commerce evening courses; Education (post-graduate); Music. 3 yrs.'.

A "Final Certificate in Law" for admission as a practitioner in the Supreme Court is obtainable by articled clerks on a curriculum less extensive than that for the LL.B.

The Univ. conducts Public Examns. of various grades, irrespective of those for its own degrees, etc., namely, in General Education—Intermediate, Leaving, and Leaving Honours; in Commercial Education—Intermediate and Leaving; and Music.

Scholarships, etc., for graduates. Angas Engineering, £200 p.a. for 2 yrs., not open to graduates of other Univs.; several smaller.

RESIDENCE. St. Mark's Residential College was incorporated in the Univ. in 1925, and St. Andrew's College in 1927.

ADULT EDUCATION. Lecture classes are being held in the following subjects: Public Speaking and Phonetics (2), Economics, Econ. Hist., Econ. Geog., Engl. Lit., Australian Hist., Mod. Hist., Philos., Psychol., Physics, Geol., and Music. Study Circles include Advanced Econ., Advanced Philos., Aristotle's Ethics, Knowledge of Books, Hist., Sociol., and Anthropol. Country classes consist of two lecture classes in Mod. Hist. and Zool. and three Study Circles: Engl. Lit., Psychol., and Econ. Series of lectures have also been given at different country centres. The number of enrolments for the city classes is ro60. Owing to the economic conditions a correct account of country students is not available for this year.

Publications. Calendar (Feb.), 3s. 6d. Australian Journal of Experimental Biology and Medical Science, quarterly, £1: 1s. p.a.

MEDICAL SCIENCES CLUB. Hon. Sec.—Dr. E. McLachlan, The Laboratory, Adelaide Hospital.

University Union. Secretary—P. C. Greenland, University.

## THE YEARS 1930, 1931

New Buildings. The Barr Smith Library in course of erection; to be ready early in 1932.

Changes in Regulations. M.A. Degree: A course of advanced study substituted for additional units at B.A. standard. B.Ec. Degree: Regulations approved. LL.B. Degree: Provision made for an Honours degree. LL.M. Degree: Thesis substituted for examn. LL.D. Degree: Bachelor may proceed to Doctorate. M.B., B.S. Degrees: Number of examns. increased from four to five—subject of the fourth and fifth examns. divided into groups. M.S. Degree: Examination divided into two parts. Diploma in Economics: Repealed.

STUDENTS. Total: full-time, 1104; preparing for B.A. and B.Sc., 646; M.B., 116; LL.B., 91; for first degrees in Engin., 107; Dentistry, 20; Music, 7; Edn. and Econ., 3; Comm., 4; graduate students—in Arts and Sci., 102; Med., 2; Law, 5; Music, 1. Pt.-time: total, 1283; graduates, Edn., 11; Comm., 3; non-graduating students, Arts and Sci., 476; Law, 5; Engin., 5; Dental, 1; Edn. and Econ., 10; Comm., 339; occasional Sci., 49; Massage, 11; Music, 33; occasional Music, 397; Resident in Colls., 54; Tutorial Class students, 1414.

Degrees. M.A., 11; B.A., 37; M.Sc., 1; LL.B., 6; M.B., 9; B.D.S., 4; D.Sc., 1; B.Sc., 17; M.E., 2; B.E., 13; Dip. in Applied Sci., 13; Dip. in Com., 27; Dip. in Music, 8; Final Certif. in Law, 3; Dip. in Educ., 3.

## UNIVERSITY OF MELBOURNE

VISITOR-H.E. THE GOVERNOR.

CHANCELLOR-Sir J. H. MACFARLAND, M.A., LL.D.

VICE-CHANCELLOR—Lt.-Col. Sir James William Barrett, K.B.E., C.B., C.M.G., M.D., M.S., F.R.C.S., R.A.M.C.

REGISTRAR-J. P. BAINBRIDGE, F.I.C.A., F.C.I.S., J.P.

Assistant Registrar—S. S. Addison, M.B.E., B.Sc. Adel., J.P.

LIBRARIAN—LEIGH SCOTT, M.A.

## PROFESSORS, LECTURERS, ETC.

Accountancy, v. Com.

Agriculture, v. also Zoology Wadham, S. M., M.A., Agr. Dip. Camb.

Prof. and Dir. of School.

Lecturers :

Cameron, S. S., D.V.Sc., M.R.C.V.S. (Animal Husbandry and Vet. Hyg.).

Kerr, J. M. (Dairying).

Wilson, H. C. (Part I.).

French, C. H. (Ag. Entomol.). Adam, D. B., B.Agr.Sc. (Plant

Pathol.).

Davey, H. W. (Horticulture). de Castella, F. (Viticulture). McDonald, G. W. (Wool Classi

McDonald, G. W. (Wool Classing). Kendall, E. A., B.V.Sc. (Vet. Dietetics).

Reid, F. M. (Hortic. Sc.).

Straughan, T. (Dairy Technol.). Raff, Janet W., M.Sc. (Entomol.).

Blackwood, R. R., B.E.E., B.C.É. (Agric. Eng. and Surv.).

Anatomy

Jones, F. Wood, D.Sc., M.B., B.S. Lond., F.R.S. Prof. Jones, W. E. A. Hughes, M.D.,

B.S. Lectr.
Turner, J. B., M.B., B.S. Lectr.

Anat., Radiological

Flecker, H., M.B., Ch.M. Syd. Hon. Demr. Anat., Regional and Applied
Searby, C. H. C., M.B., M.S.,
F.R.C.S. Lectr.

Architecture

Gawler, J. S., F.R.V.I.A. Lectr. Sutherland, G. J., Dip.Arch.

Lectr.

Irwin, L., A.R.I.B.A.

Dir. of Atelier. Good, Eileen M. F., Dip.Arch.

Sr. Demr.

Ralton, A. J., Dip.Arch. Des.

Demr.

Alsop, R. H., F.R.I.B.A., F.R.V.I.A. Hon. Lectr. Ellis, R. O. Instr.

Morris, M. H. Instr.

Bacteriology, v. Med.

Bio-Chemistry, v. Physiology

Botany & Plant Physiology

Ewart, A. J., D.Sc. Lond., Ox., and Melb., Ph.D. Leip., F.L.S., F.R.S. Prof.

McLennan, Ethel I., D.Sc. (Bot. and Plant Pathol.)

Assoc. Prof.

Patton, R. T., D.Sc., M.F. Harv., D.I.C. Lond. (Bot. and Agric. Bot.) Sr. Lectr.

Cookson, Isabel C., B.Sc. Lectr. Thomas, L. A., B.Sc. Sr. Demr.

Chemistry, v. also Bio-Chem. Norris, J. G., LL.M. Tutor (Law). Hartung, E. J., D.Sc. Prof. Dentistry, v. Affiliated Colls. Green, W. H., D.Sc. Sr. Lectr. Davies, W., D.Sc. Manc., D.Ph. DutchInstr. Ox. (Organic C.) Sr. Lectr. Lodewyckx, A., M.A., Litt.D. Cavanagh, B., M.A. Ox., D.Sc. Economics, v. also Com. Lond. (Gen. Phys. and Inor-Giblin, L. F., D.S.O., M.C., M.A. ganic C.) Sr. Lectr. Camb. Ritchie Prof. Anderson, V. G. (Principles of Education Applied C.) Lectr. Wrigley, L. J., M.A. Prof. Ampt, G. A., B.Sc. Lectr. Sharman, M. S., M.A., M.Sc. Sugden, Ruth, M.Sc. Sr. Demr. Sr. Lectr. Welch, K. N., M.Sc., Ph.D. Durh. Browne, G. S., M.A. Ox., Dip.Ed. Sr. Demr. Ox., Lond. Sr. Lectr. Scott, Margaret E., B.Sc. Sr. Demr. Lecturers: Classical Philology Frederick, W. H., M.A., Dip.Ed. Scutt, C. A., M.A. Camb. Prof. Marshall, Isabella D., M.A. Ox. Kerry, W., M.A. Camb. and Melb. and Dub., Dip.Ed. Camb. Sr. Lectr. MacDonald, Ethel M., B.A. Cornwall, E. W., B.A. Ox. Greig, Jane Stocks, M.B., B.S., Evening Lectr. D.P.H. (Hygiene). Woinarski, C. H. Z., B.A. Tutor. Hoy, Alice, M.A., LL.B., Dip.Ed. Wilson, H. W., B.Sc. Commerce ΓProf. Bachelard, P. M., Ph.D. Köln. Copland, D. B., M.A., D.Sc. N.Z. Keartland, Bertha M. H., M.Sc. Wood, G. L., M.A. Adel., Litt.D. Jamieson, N. L., B.A., B.Com., Melb. (Econ. and Econ. Geog.) Dip.Ed. Assoc. Prof. Noall, A. Mauldon, F. R. E., B.A., M.Ec. Engineering, v. also Agric. Syd., Litt.D. Melb. Kernot, W. N., M. Mech. E., (Econ.) Sr. Lectr. M.I.C.E. Prof. Lecturers: Brown, E. B., D.Sc., A.C.G.I. Burton, H., B.A. Ox. and O'lnd. (Econ. Hist.). Assoc. Prof. (Elec. E.). Sexton, C. W. N., M.C.E., Foenander, O. de R., LL.M. M.Inst.C.E. (Econ). Sr. Lectr. (Civ. E.). Fitzgerald, A. A., B.Com., F.I.C.A. Darwin, E. R. H., B.Sc. Adel. (Acctev.). Kelly, E. C. W., LL.M. (Law). Sr. Lectr. (Surveying). Rennie, E. J. C., M.E. Cunningham, K. S., M.A., Ph.D. Columb., Dip.Ed. (Marketing). Sr. Lectr. (Mech. Eng.). Lang, E., M.E. (Adel.), Dip.C.E. Janes, C. V., B.A., B.Com. (In-Lectr. (Civ. E.). vestments). Mirfield, T. N., B.E.E. Fitzgerald, G. E., B.A., B.Com. (Acctcy.) Asst. Lectr. Lectr. (Mech. Eng.). Faul, A. H. Weller, G. A., B.Com. Asst. Lectr. (Graphics). Tutor (Banking, Currency, and Exchange). Pt.-time Lecturers: Clark, G. C. L., M.C., M.M.E., Goldberg, L., B.Com.

Tutor (Accountancy).

B.Sc. Tasm. (Mining).

Foenander, O. de R., LL.M.

Litt.D.

Sweetman, E., M.A., Dip.Ed.,

O'Malley, G. B., B.Met.E. Lectr.

Evening Lectr.

Evening Lectr.

Callaway, A. E. (Roads).

Speedie, M. G.

Summons, W. E., M.D., B.S.,

Webb, Jessie S. W., M.A. Sr. Lectr.

D.P.H. (Ambulance).

Phillips, P. D., M.A., LL.B. (Mod. Senr. Demr. (Civ. Eng.). Willoughby, E. O. Polit. Instns.) Lectr. Sr. Demr. (Elec. E.). Harper, N. D., B.A., Dip.Ed. Galbraith, L. Tutor. Senr. Demr. (Strength Mulvany, J. F., M.A., LL.B. Elasticity Tutor. and Italian Materials). Instr. 2 Demrs. Schiassi, O., LL.D. (Bologna) *Iapanese* English Lang. and Lit. Inagaki, M. Instr. Cowling, G. H., M.A. Leeds Prof. Derham, Enid, M.A. Sr. Lectr. LawPrice, W. T., M.A. Sr. Lectr. Bailey, K. H., M.A., B.C.L. Ox. Tutors: (Public Law) Maxwell, Beatrice M., B.A. Paton, G. W., B.A., B.C.L. Ox. Pitt, Kathleen, B.A. Melb. and Ox. (Turispr.) Prof. Jennings, Vera C., M.A. Lecturers: French [Assoc. Prof. Duffy, C. Gavan (Contracts, etc.). Chisholm, A. R., B.A. Syd. Gregory, R. H., LL.B. (Land, etc.). Cornell, J. G., B.A., B. ès L. Paris Richardson, J. A., LL.B. Lond. Lectr. (Wrongs, etc.). Karagheusian, V. N. T. Lectr. Dean, A., LL.M. (Equity). Callil, F. A. L., M.A. Tutor. Phillips, P. D., M.A., LL.B. (Const. Coverlid, Dorothea R., M.A. Hist. and Internat. Relations). Tutor (Science Students). O'Bryan, N. J. G., LL.B (Private Geology and Mineralogy [Prof. Internat. Law). Skeats, E. W., D.Sc. Lond. and Sholl, R. R., M.A. Melb., A.R.C.Sc. Lond., F.G.S. (L. affecting Journalism). Summers, H. St. J., D.Sc. Coghill, E. H., LL.M. Assoc. Prof. Phillips, P. D., M.A., LL.B. Tutor. Singleton, F. A., M.Sc. (Agric. G.) Mathematics, Pure and Mixed Sr. Lectr. Cherry, T. M., B.A. Melb., Ph.D. Hills, E. S., M.Sc. Lectr. Camb. Prof. Hauser, H. B., B.Sc. Sr. Demr. Gundersen, G., B.Sc. Sr. Lectr. 2 Demrs. Barnard, R. J. A., M.A. Sr. Lectr. Belz, M. H., M.Sc. Camb. Sr. Lectr. German [Assoc. Prof. Lavater, Eleanor, B.A. W.A., Lodewyckx, A., M.A., Litt.D. Coverlid, Dorothea R., M.A. B.Sc. Camb. Tutor. Tutor (Science Students). Ross, F., B.A. Tutor. Histology Medicine, v. infra Hurley, L. E., M.D., M.S. Lectr. Metallurgy [Prof. Greenwood, J. Neill, D.Sc. Manc. History Scott, E. Prof. Thompson, P. F. Sr. Lectr.

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Mining, v. Engineering	Russian
Music	Goode, J. S., M.E. Instr.
Heinze, B. T., F.R.C.M., Degré	Scandinavian Languages
Sup., Schola Cantorum, Paris Ormond Prof.	Lodewyckx, Mrs. A. Instr.
Biggins, L., Mus.Bac. Asst.	Spanish Clot-Fernandez, R. Instr.
Natural Philosophy	Veterinary Science, v. infra
Laby, T. H., M.A., Sc.D. Camb.,	Zoology
F.R.S., F.Inst.P.	Agar, W. E., M.A. Camb., D.Sc.
Ch. of Mfrs. Prof.	Glas., F.R.S. Prof.
Hercus, E. O., D.Sc., F.I.P. Assoc. Prof.	Tiegs, O. W., D.Sc. Adel.
Sr. Lecturers:	Assoc. Prof.
Rogers, J. S., B.A., Dip.Ed., M.Sc.,	Buchanan, Gwynneth V., D.Sc.
F.I.P.	Sr. Lectr.
Martin, L. H., Ph.D. Camb.	Sweet, Georgina, D.Sc. Hon. Lectr.
Bingham, R. T. W., M.Sc.	Drummond, F. H., B.Sc. W.A.
Lectr. and Demr.	Demr.
Allen, Natalie C. B., B.Sc. N.Z., M.Sc. Sr. Demr.	
Nelson, Edith A., M.A., M.Sc.	Medicine
Sr. Demr.	(for subjects of first 2 yrs.—Anat.,
Walpole, J., B.Sc. Tas. Demr.	etc., v. supra)
Philos., Mental & Moral	Anæsthetics Maywell I A I MS B Acr Sc
Gibson, W. R. B., M.A. Ox. and Melb., D.Sc. Ox. Prof.	Maxwell, L. A. I., M.S., B.Agr.Sc., M.D., B.S. Lectr.
Merrylees, W. A., B.Litt. Ox.,	Bacteriology
M.A. Sr. Lectr.	Woodruff, H. A., M.R.C.S.,
Ball, W. M., B.A.	L.R.C.P. Dir.
(Hist. of Polit. Phil.) Lectr.	Gregory, T. S., B.V.Sc. Sr. Lectr. Rennie, Hilda M., M.B., B.S.
Warren, Olga M., M.A. Tutor.	Lectr.
Atkins, G. A., B.A. Tutor.	Gundersen, Sara E., B.Sc., M.B.,
Physics, v. Nat. Phil.	B.S. Sr. Demr.
Physiology	Clinical M. and Clin. Surg.
Osborne, W. A., M.B., B.Ch. Belf., D.Sc. Tüb. Prof.	Staffs of the Melb., Alfred, and St.
D.Sc. Tüb. Prof. Young, W. J., M.Sc. Manc., D.Sc.	Vincent's Hospls.
Lond., D.Sc. (Bio-Chem.)	Ethics, Med. [Lectr.
Assoc. Prof.	Anderson, A. V. M., M.D., B.S.
Maxwell, L. A. I., M.Sc., B.Agr.Sc.,	Forensic M.
M.D., B.S. Sr. Lectr.	Mollison, C. H., M.B., B.S., M.R.C.S. Eng. Lectr.
Barrett, Sir J. W., K.B.E., C.B.,	_
C.M.G., M.D., M.S., F.R.C.S.	Mat. Med. and Pharmacy
Eng. (Ph. of Special Senses) Sr. Lectr. (Hon.).	Stanton, B. L., M.B., B.S. Lectr.
3 Demrs.	M. Theory and Practice
	Latham, L. S., M.A., M.D., B.S. Stewart Lectr.
Pub. Health, v. Med.	Siewart Lectr.

Hiller, K., M.D., B.S. Lectr. Sewell, S. V., M.D., B.S. Lectr. Silberberg, M. D., M.D., B.S.

Lectr.

Fairley, K. D., M.D., B.S. Lectr.

Obst. and Gynæc.

Allan, R. M., M.C., M.D., Ch.B. Edin., F.R.C.S.E., F.C.S.A., L.M. Dublin Prof. Campbell, Kate I., M.D., B.S. (Infant Welfare) Lectr. 3 Demrs.

Pathology

MacCallum, P., M.C., M.A., M.Sc. N.Z., M.B., Ch.B., D.P.H. Edin. Prof.

Apperly, F. L., M.A., M.D., B.Ch. Ox., M.R.C.S., L.R.C.P., D.Sc. Sr. Lectr.

King, E. S. J., M.D., B.S.

Stewart Lectr.
Chapman, H. T., B.D.Sc., L.R.C.S.,
L.R.C.P. Edin. Sr. Demr.

Pub. Health

Dale, J., O.B.E., M.D., Ch.B., M.R.C.S., L.R.C.P., B.Sc. Lond. (Pub. Health) Lectr. Radiology [Lectr. Cross, K. S., M.Sc., M.D., B.S.

Surgery [Stewart Lectr. Kilvington, B., M.D., M.S.

Hurley, T. E. V., C.M.G., M.D.,
M.S., F.R.C.S. Lectr.
Zwar, B. T., M.D., M.S. Lectr.
Devine, H. B., M.B., M.S. Lectr.
Searby, C. H. C., B.Sc., M.B., M.S.,
F.R.C.S. Lectr.

Upjohn, W. G. D., M.D., M.S. Lectr. Therapeutics

Cowen, S. O., M.D., B.S. Lectr. Venereal Diseases

Morris, A. E., M.B., B.S. Lectr.

#### Veterinary Science

V. Parasitology

Sweet, Georgina, D.Sc. Sr. Lectr. (Hon.).

V. Pathology, etc. Albiston, H. E., B.V.Sc.

Lectr. and Actg. Dir.

## University Extension

Gunn, Prof. J. Alexander, M.A., Ph.D. Liv., B.Sc. Lond. 22 Tutors. Director.

#### AFFILIATED COLLEGES

I.—RESIDENTIAL—Controlled by representatives of the Churches but open to members of all religious denominations:

TRINITY COLLEGE (Church of England). Warden, J. C. V. Behan, M.A., LL.D. (Melb.), M.A., B.C.L. (Ox.). Sub-Warden, G. Taylor, M.A. (West Aust.), LL.M. 13 other Lectrs.

Ormond College (Presbyterian). Master, D. K. Picken, M.A. (Camb., Glas., and Melb.); Vice-Master, H. W. Allen, M.A. 12 other Lectrs.

Queen's College (Methodist). Master, Rev. F. W. Kernick, M.A. (Ox.); Vice-Master, J. F. Foster, B.A., LL.M. 15 other Lectrs.

NEWMAN COLLEGE (R.C.). Rector, V. Rev. J. M. Murphy, S.J., M.A.; Dean, Rev. H. B. Loughnan, S.J., B.A., F.G.S., Dip.Ed. 18 Tutors (2 Resident).

II. Australian College of Dentistry. Principal, Prof. F. C. Wilkinson, M.D., Ch.B., B.D.S. Liv., D.D.Sc. Other Lectrs. (excluding those on Univ. staff): C. E. Allen, D.D.Sc., L.D.S.; E. B. Nicholls, D.D.Sc., L.D.S.; H. C. Trumble, M.B., B.S., F.R.C.S.; J. K. Clark, D.D.Sc., L.D.S.; W. J. Tuckfield, M.A., C.D., F.A.C.D., D.Sc. Chic.; C. H. Down, B.D.Sc., L.D.S.; F. A. Aird, D.D.Sc., L.D.S.; K. T. Adamson, D.D.Sc., L.D.S.; J. S. R. Heath, L.D.S., R.C.S. Eng.; J. M. Lewis, M.A., C.D., D.D.Sc.; A. J. Prytz, L.D.S., D.D.S.

#### GENERAL INFORMATION

The Univ. was founded in 1853 by Act of the Victorian Legislature. In 1923 a new University Act was passed, increasing the annual endowment for general purposes to £45,000, providing an additional grant of £8500 for Univ. Extension, a Department of Commerce, and Research, and making constitutional changes. The Council is now composed of 3r members—10 elected by graduates; representatives of the teaching staff (5), of affiliated colleges (2), under-graduates (2); 8 appointed by the Govt. (3 being members of Parliament, the others representing business interests and technical schools);  $ex\ officio$ ; and 2 co-opted members. The legislative functions of the old Senate were transferred to a Standing Committee which, in addition, may submit any matter it pleases for the consideration of the Council. Recognition was accorded in the Act to the Professorial Board and the Faculties. The grounds, 104 acres, include four 10-acre College sites surrounding a recreation ground of 16 acres.

LIBRARY, 75,000 vols. Museums and Labs., Anat., Biol., Engin., Geol., Path. (18,000 specimens), Vet. Laboratories. Agric., Bact. (investigations undertaken for Govt. Hospitals and Med. practrs.), Chem., Dent., Metall. and Mining (with 3 head stamp battery), Physics, Physiol. Vet. Research Institute. Weiribee Research Farm. Hall Research Institute in connexion with Melbourne Hospl.

FACULTIES. Arts, Sc., Law, Med., Dent., Vet. Sc., Engin. (including Archit., Metall., Mining), Agric., Educn., Commerce, Music.

Degree Courses: 3 yrs.—B.A. (ordy. and with Honrs.), B.Sc., B.Com.; 4 yrs.—B.Sc. (Honrs.), LL.B., Mus.Bac., B.D.Sc., Lic.V.Sc., B.V.Sc., B.C.E., B.M.E., B.Met.E., B.E.E., B.Mech.E., B.Agric.Sc.; 5 yrs.—B.Arch.; 5\frac{2}{3} yrs.—M.B., B.S.

The first 2 years for the LL.B. may be those of the Arts course. The 2nd year of the B.Agr.Sc. course is passed at Werribee Research Farm.

HIGHER DEGREES. Open to Bachelors of x yr.'s standing—LL.M., M.V.Sc., 2 yrs.'—M.A., M.Sc., M.D., M.S., D.D.Sc., M.C.E., etc.; 3 yrs.'—Mus.D., D.V.Sc.; 4 yrs.'—D.Sc., LL.D.; 5 yrs.'—D.Eng.; 7 yrs.'—D.Litt. Courses of MEDICAL POST-GRADUATION STUDY arranged by special Committee on which Univ. is represented.

DIPLOMAS (which except Dip.Ed. can be taken without Matricn.); Music, 3 yrs.; Educn., 3 yrs.' course, which may include 2 yrs. of the course for any degree in the Univ.; Analyt. Chem., 9 mos. following Final Hons. in Chem.; D.P.H., open to Med. grads. of Melb. of 1 yr.'s standing and persons who have for 1 yr. been qualified for registration as Med. practr. in U.K., 12 mos.; D.T.M., open to Aus. Med. practrs. of 1 yr.'s standing, 3 mos.; Dip. Ophth., Dip. L. and O., Dip. G. and O., open to Med. graduates of 2 yrs.' standing, 15 mos. each.; Agric., 4 yrs.; Commerce, 3 yrs.; Arch. Des., 3 yrs.

Scholarships, etc. Aggregate annual value about £14,000. Among the more important are Research Fellowships of £500 each, Research Scholarships up to £200, and combined Research and Teaching foundations.

The Act of 1923 provided for the admission of the following free students: 15 certificated teachers of the Education Dept. per annum; 5 other Govt. officers per annum; 50 other persons per annum. All other certificated teachers and students of Training Colleges are admitted at half fees,

A Students' Loan Fund has assets exceeding £40,000.

RESIDENCE. The Affiliated Colls. (v. supra) accommodate over 500 resident students.

Adult Education. Tutorial classes are conducted in the city and suburbs and 4 country centres.

Public Examinations. School Intermediate and School Leaving are held by the Univ. annually in Dec.; the Intermediate qualifies for entry into the State Public Service, the School Leaving certif. qualifies for matricn. The Univ. also arranges for the Inspection of Secondary Schools.

Publications. Calendar (Dec.), 5s. net, includes list of publicns. by members of staff; Annual Examn. Papers, in sets, 6d. each; Students' Handbook, 1s. 6d.; Handbook of Pub. Examns., 3s. 6d.; Conservatorium Prospectus; Manual of Pub. Examns. in Music. Students' journals: Melb. Univ. Magazine; Farrago (weekly), Speculum (Medical), The Margin (Commerce).

The University Press, founded in 1921, has published several important books by members of the Univ., embodying results of research in subjects peculiar to Australia. Messrs. Macmillan & Co. act as distributing agents. It conducts an exchange business in text-books, and caters for students' requirements in stationery and apparatus.

## THE YEARS 1930, 1931

Benefactions. R. J. Fletcher Bequest, £7119, Medical Research; Mrs. Annie Pemberton Bequest, £2000, Scholarships; Mrs. Marion Boothby Bequest, £875; Edward Wilson Trustees, £290, Mental Deficiency Research.

New Post. K. H. Bailey, M.A., B.C.L. (Oxon.), to the new chair of Public Law.

STUDENTS (1930). Total, 3040; not attending lectures but receiving tuition by correspondence, 216.

Univ. Extension. Tutorial class students, 1516; extension lectures, 58; wireless "lecturettes," 35.

Degrees. B.A., 98; M.A., 28; Litt.D., 1; M.Ed., 1; B.Sc., 7; M.Sc., 7; D.Sc., 2; LL.B., 39; M.B., B.S., 53; M.D., 14; M.S., 2; B.C.E., 10; B.Mech.E., 1; M.Mech.E., 1; B.Met.E., 1; B.E.E., 10; Mus.Bac., 7; B.D.Sc., 19; D.D.Sc., 2; B.Agr.Sc., 8; M.Agr.Sc., 3; M.V.Sc., 1; D.V.Sc., 1; B.Com., 42.

# UNIVERSITY OF QUEENSLAND, BRISBANE

CHANCELLOR-The Hon. Chief Justice Sir J. W. BLAIR.

VICE-CHANCELLOR-W. N. ROBERTSON, C.M.G., C.B.E., M.B., Ch.M., F.A.C.S.

REGISTRAR-J. F. McCAFFREY.

## PROFESSORS, LECTURERS, ETC.

Agriculture

Murray, J. K., B.A., B.Sc. (Agr.) Syd. Prof.

Biology [Prof. Goddard, E. J., B.A., D.Sc. Syd. Cayzer, A., B.Sc. Syd. (Zool.)

Lectr. Herbert, D. A., D.Sc. Melb. (Bot.) Lectr. Perkins, F. A., B.Sc. (Agr.) Syd. (Econ. Ent.) Lectr. Hardy, G. H.

Fellow in Economic B.

#### Chemistry

Bagster, L. S., D.Sc. Melb. (Applied C.) Acting Prof. Hines, H. J. G., B.Sc. Lond. (Agricl.) Lectr. Jones, T. G. H., D.Sc. Syd., A.I.C. Lectr. O'Connor, E. A., M.Sc. Melb. Sr. Demr. & Asst. Lectr.

Classics

Michie, J. L., M.A. Camb. Prof. Castlehow, S., M.A. Ox. Lectr.

Engineering

Hawken, R. W. H., B.A., M.E. Syd., M.I.C.E. Prof. Boyd, A., D.Sc. Lond., B.E., M.I.E.E.

(Mech. & El. E.) Lectr.

Ross, C. N., M.Sc. Tas., B.M.E. Melb. (Civ. E.) Lectr. Munro, A. R. Sr. Demr. & Asst. Lectr.

Stoney, A. J. M'C., B.E.E. Melb. Senr. Demr. & Asst. Lectr. 10 Special Lectrs.

English Language and Lit. Stable, J. J., M.A. Camb. McCaughey Prof.

Geology and Mineralogy Richards, H. C., D.Sc. Melb.

Prof. Bryan, W. H., D.Sc. Lectr. Whitehouse, F. W., Ph.D. Camb., M.Sc.

History and Economic Science Alcock, H., M.A. Ox.

McCaughey Prof. Melbourne, A. C. V., M.A. Adel. Lectr. in Econ. Colonial H.

Gifford, J. L. K., M.A. Glas. Lectr.

LawCumbrae-Stewart, F. W. S., D.C.L.

## Ox., K.C. Mathematics

Prof. Raybould, Ethel H., M.A. Lectr. Simonds, E. F., M.A., B.Sc. Syd., Ph.D. Col. Lectr.

Garrick Prof.

Medical Psychology Lowson, J. P., M.A., M.D. Edin. Research Prof.

Modern Languages
Robinson, F. W., M.A. Syd., Ph.D.
Jena Lectr.
Schindler, C., M.A. Lectr.
Tommerup, H. G., M.A.

Part-time Lectr.

Philosophy
Scott-Fletcher, M., M.A. Syd.,
B.Litt. Ox. Prof.
Kyle, W. M., M.A. Lectr.

Physics

Parnell, T., M.A. Camb. Prof.

Lusby, S. G., M.A. Syd. Asst. Prof. Rimmer, T., M.Sc. Manc. (Phys. and Meteorol.) Lectr.

Surveying

James, F. W., M.Sc.

Part-time Lectr.

#### External Studies

Jones, T. E., B.A. Syd. Director. Darvall, Annie E. J., B.A. Asst. Smith, Marjorie M. C., B.A. Asst.

#### Workers' Tutorial Classes

Molesworth, B. H., M.A. Director.

#### RECOGNIZED RESIDENTIAL COLLEGES

Emmanuel (Presb.). Principal—Mervyn Henderson, M.A. Camb.

St. John's (C. of E.). Warden—Rev. Canon W. E. C. Barrett, M.A. Camb. King's (Methodist). Master—Rev. H. H. Trigge, M.A., B.D. Melb.

St. Leo's (R.C.). Rector-Rev. J. English, D.D.

Women's (undenominational). Principal—Freda Bage, M.Sc. Melb., F.L.S.

#### GENERAL INFORMATION

The Univ. was established by an Act of the local legislature in 1909. The entire management and control are in the hands of a Senate of 20 members, of whom 10 are appointed by the Government and 10 are elected by the Council (consisting of all members and past members of the Senate, graduates of the Univ. of 3 yrs.' standing, persons appointed by the Govt. as representatives of Commercial, Industrial, Scientific, etc., Assocns., benefactors, etc.). The annual grant from Govt. was £10,000 until 1917, when it was raised to £15,000. In 1922 it was raised to £20,000. In 1923 a further £2000 was voted by the Government, which has since contributed £22,000 per annum. Under the will of the late Sir Samuel McCaughey the Univ. receives an annual income of about £17,000.

The grounds, facing the Brisbane River and adjoining the Botanical Gardens, include, in addition to the main building and recreation grounds, 6 departmental buildings and the Central Technical College.

The present accommodation belongs to the Central Technical Coll. and is only used temporarily for Univ. purposes. The permanent site of the Univ. consists of 223 acres, situated on the Brisbane River in the suburb of St. Lucia. It has a river frontage on three sides, and was the gift of Dr. and Miss Mayne, Brisbane. At present the funds needed for the erection of buildings on this site are not available.

LIBRARY, 34,500 vols. LABORATORIES: Agric., Biol., Chem., Applied Chem., Engin., Geol., Physics.

FACULTIES. Arts, Science, Engineering, Agriculture, Commercial Studies, Law, Medicine. Only the first five have been organized for imparting instruction. Under arrangements made through Joint Boards, composed of

members of the Univ. and of representatives of the dental and legal professions, candidates can fulfil, in association with the Univ., part of the requirements for entry to these two professions in Queensland.

DEGREE COURSES. 3 yrs.—B.A., B.Com., B.Sc.; 4 yrs.—B.Sc. Honours, B.Sc.Agr., B.Sc. (Applied) in Industrial Chem., and B.E. in Civ., Mech. and Elec., Chem., or Mining Engin.

A Diploma Course in Mech. and Elec. Engin. (may be followed in any approved Coll. or Instn.), 4 yrs.; a Diploma course of at least 2 yrs. for persons who have had 3 yrs.' practical experience of Journalism; in Commerce a Diploma and a Certificate are offered.

HIGHER DEGREES. M.A. and M.Sc., open to B.A. and B.Sc. of 2 yrs.' standing, through examn. (M.A., examn. and thesis). M.E., open to B.E. of 3 yrs.' standing, 25 yrs. of age, and engaged in professional work. D.Sc. open to M.Sc. of 5 yrs.' standing by examn. and thesis.

EVENING LECTURES AND EXTERNAL STUDENTS. Evening students may extend their courses over 5 yrs. in Arts and Sc. No evening work in Engin. subjects is done, but by completing 5 yrs.' evening work elsewhere exemption from the first 2 yrs. of the B.E. course may be obtained.

Persons who having matriculated are unable to attend lectures at or in connexion with the Univ. may pursue certain courses under the guidance of the Director of Correspondence Studies. They may thereby, provided they pass the prescribed examns. (which may be held at local centres), qualify for a B.A. degree.

ADULT MATRICULATION. Candidates who have attained the age of 25 yrs. may be admitted to matricn. in the Faculties of Arts, Science, and Engineering upon passing a special examn.

Scholarships, etc., for Graduates. 2 gold medals offered by Govt. for distinction at graduation; £100 p.a. for 2 yrs. for Chem. Research; £200 for 1 yr. for Engin. work; £250 p.a. for 2 yrs. for study outside Australasia; £500 p.a. for 3 yrs. (W. and E. Hall Foundation), of which 2 to be spent abroad in Engin. Research; £500 p.a. for 2 yrs. in Econ. Biol.

RESIDENCE. Undergraduates are required to reside with their parents or approved friends or a tutor or in a recognized Residential Coll. or boardinghouse licensed by the Senate. Fees in the Colleges, including residence, commons, and tuition, 20 gs. a term (Women's £20, St. Leo's £20).

Public Examinations are held by the Univ. annually in Nov. and Dec.: Junior, Junior Commercial, and Senior. For matriculation the corresponding public examns. of the Univs. of Adelaide, Melbourne, and Sydney are treated as equivalent to these.

Music Examinations. Under a joint scheme, controlled by the Australian Music Examins. Board, which is representative of the Universities of Queensland, Melbourne, Tasmania, Adelaide, and Western Australia, and the State Conservatorium of Music of New South Wales, examins. in Music are held throughout the Commonwealth twice a year, in May and September.

Publications. Calendar (Jan.), 2s. 6d. (postage 3d. extra); Manual of Pub. Examns., 2s. (postage 3d. extra); Music Manual, free, postage 3d.

## THE YEARS 1930 and 1931

Benefactions. £100 from trustees of the late Hon. Albert Norton, being balance of a legacy of £1000 for Library or general purposes; £140 from the

Carnegie Corporation, N.Y., for adult education; £2970 from estate of the late Duncan McNaughton for establishing scholarships for undergraduates; £17,000 from estate of the late John Darnell—£12,000 being towards a Chair of English and the balance for the library. Donations from students, £880.

EXTRA-MURAL WORK. Owing to the existing depression and the need for economy, the 3 courses of 5 lectures each, delivered in Brisbane in past years by the teaching staff were not held in 1931. For the same reason lectures were not arranged in country towns.

RETIREMENTS. Bertram Dillon Steele, Prof. of Chem., resigned, was granted the title of Emer. Prof., the first Prof. of the University to receive this designation.

DEATH. Herbert James Priest, Lectr. in Maths.

STUDENTS. Full-time: (1930) 238, (1931) 269; part-time: (1930) 540, (1931) 530; total: (1930) 778, (1931) 799.

Degrees (1930). B.A., 25; M.A., 2; B.Commerce, 1; B.Sc., 9; B.Sc. (Agric.), 5; B.App. Science in Industrial Chemistry, 2; M.Sc., 4; B.E., 8; total, 56.

(1931). B.A., 37; M.A., 5; B.Commerce, 1; B.Sc., 15; B.Sc. (Agric.), 4; M.Sc., 1; B.E., 7; M.E., 2; total, 72.

### UNIVERSITY OF SYDNEY

VISITOR-H.E. THE GOVERNOR.

CHANCELIOR—Hon. Sir William Portus Cullen, K.C.M.G., M.A., LL.D.

Deputy-Chancellor—Sir Mungo W. MacCallum, K.C.M.G., M.A., LL,D., D.Litt.

VICE-CHANCELLOR—R. S. WALLACE, M.A. Aber. and Ox., LL.D. Aber.

REGISTRAR-W. A. SELLE, M.A.

LIBRARIAN-H. M. GREEN, B.A., LL.B.

TUTOR TO WOMEN STUDENTS-ISABEL M. FIDLER, B.A.

### PROFESSORS, LECTURERS, ETC.

Accountancy, v. Com.

Agriculture

Watt, R. D., M.A., B.Sc. Prof. Lectrs.:

Waterhouse, W. L., D.Sc.Agr., D.I.C. Lond. (Plant Path. and Agr. Bot.).

Wright, G. (A. Chem.).

Anderson, R. H., B.Sc.Agr. (Forestry).

Wolstenholme, E. K., F.L.S. (Fruit Culture).

Anaiomv

Burkitt, A. N. St. G. H., M.B., B.Sc. Challis Prof.

Stump, C. W., M.D., D.Sc. Edin. (Histology and Embryology) Bosch Prof.

Richardson, K. C., M.Sc. W. Aust. Lectr.

Coppleson, V. M., M.B., Ch.M., F.R.C.S. (Surg. A.) Lectr. & Demr.

Garde, Mary L., B.Sc. (Histol.)
Asst. Lectr.

Demrs.:

Nowland, R. E., M.B., Ch.M. Miller, I. D., M.B., Ch.M. Webb, A., M.B., B.S. Adel. Anthropology

Prof. Firth, W. R., M.A. N.Z., Ph.D. Lond. Lectr. & Acting Prof. Hogbin, H.I.P., M.A. Actg. Lectr.

Architecture

Wilkinson, L., F.R.I.B.A., F.I.A. (Dean) Prof.

Hook, A. S., A.R.C.A. (Pract. and Constn.) Assoc. Prof. Carter, N. (Freehand Dr.) Instr.

Moore, J. D., A.R.I.B.A. (Design) Lectr.

Richardson, R. Lectr. 1 Studio Asst.

Astronomy, v. Geodesy

Botany, v. also Agric.

Osborn, T. G. B., D.Sc. Man. (Dean) Prof.

McLuckie, J., M.A. Glas., D.Sc. Asst. Prof.

Brough, P., M.A., B.Sc., B.Sc.Agr. Glas. Lectr. & Demr.

2 Demrs.

Chemistry

Fawsitt, C. E., D.Sc. Edin., Ph.D. Leip. Prof.

Lectrs. & Demrs. :

Burrows, G. J., B.Sc.

Brereton, E. Le G., B.Sc.

Iredale, T., B.Sc. Syd., D.Sc. McRae, C. R., M.A. Melb., Ph.D. Lond. Lond. (Ed. Psychol.) Lectr. Mellor, D. P., M.Sc. Asst. Lectr. Engineering, v. infra I Demr. English Language Chem., Organic, Pure and Holme, E. R., O.B.E., M.A. Applied McCaughey Prof. Earl, J. C., D.Sc. Adel., Ph.D. Waldock, A. J. A., M.A. Lectr. St. And., F.I.C. English Literature Lions, F., B.Sc., Ph.D. Manc. MacCallum, Sir Mungo Lectr. K.C.M.G., M.A., LL.D. Glas., Trikojus, V. M., B.Sc., D.Phil. Ox. D.Litt. Ox. Hon. Prof. Lectr. Brereton, J. Le Gay, B.A. Prof. I Demr. Forestry, v. Agric. Classics Woodhouse, W. J., M.A. Ox. French Prof. Nicholson, G. G., C.B.E., M.A., (Greek) Todd, F. A., B.A., Ph.D. Jena B.C.L. Ox. McCaughey Prof. Prof. Marks, Gladys, B.A. (Latin) (Dean) Lectr. Barbier, C. H., L. ès L. Lectrs.: Powe, A. B., M.A. Q'ld (Latin). Geodesy and Astronomy Robinson, A. H., M.A. (Latin). Sawkins, D. T., B.A. Camb., M.A. Shipp, G. P., B.A. (Latin). Russell Lectr. Geography Commerce Holmes, J. McD., B.Sc. Glas. Lectrs.: McCaughey Assoc. Prof. Kerr, I. W., B.Ec., F.I.C.A. 2 Demrs. (Acctey.). Geology and Phys. Geog. Burt, S. J., B.Ec. (Business). Cotton, L. A., M.A., D.Sc. Bradley, W. J., B.A., LL.B. (Com. Prof. & Hovell Lectr. and Indust. Law). Browne, W. R., D.Sc. Asst. Prof. Dentistry, v. infra Waterhouse, L. L., B.E. Economics Lectr. & Demr. Mills, R. C., LL.M. Melb., D.Sc. Osborne, G. D., D.Sc. (Econ.) Lond. Dean & Prof. Lectr. & Demr. Madgwick, R. B., B.Ec. Lectr. Dun, W. S. (Palæont.) Lectr. Portus, G. V., B.Litt. Ox., M.A. Powell, Dorothy E., B.Sc. Demr. (E. Hist.) Lectr. Quodling, Florrie M., B.Sc. Bland, F. A., M.A., LL.B. (Pub. Demr. Lectr. Admn.) German and Comparative Lit. Watts, P. R., B.A., LL.B. (Mod. Waterhouse, E. G., M.A. Pol. Institutions) Lectr. McCaughey Assoc. Prof. Sawkins, D. T., B.A. Camb., M.A., *History*, v. also Econ. F.S.S. (Statistics) Lectr. Roberts, S. H., M.A. Melb., D.Sc. Education (Econ.) Lond., Litt.D. Melb. Mackie, A., M.A. Prof. Challis Prof. Cole, P. R., M.A., Ph.D. Col. (Hist. Wood, F. L., B.A. Asst. Lectr. of Ed.) Lectr. Japanese, v. Oriental Roberts, T. T., M.A. Lectr. Phillips, G. E., M.A., D.Sc. Lectr. Law, v. infra

Mathematics, Pure and Applied Carslaw, H. S., M.A., Sc.D. Camb., D.Sc. Glas., LL.D. Glas. Prof. Wellish, E. M., B.A. Camb., M.A. (Appl. M.) Assoc. Prof. Lyons, R. J., M.A. Camb., B.A. Syd. Lectr. Thorne, H. H., M.A. Camb., B.Sc. Lectr. Medicine, v. infra Mining, v. Engineering Oriental Studies Sadler, A. L., M.A. Ox. Prof. [Challis Prof. Philosophy techny) Anderson, J., M.A. Glas. Zoology Porter, N. C., B.A. Melb. Asst. Lectr. Physics Vonwiller, O. U., B.Sc. Prof. Bailey, V. A., M.A., D.Phil. Ox. Assoc. Prof. Briggs, G. H., B.Sc., Ph.D. Camb. Asst. Prof. Booth, E. H., M.C., B.Sc., F.I.P. 1 Demr. Lectr. & Demr. 2 other Demrs.

Physiology [Prof. Davies, H. W., M.B., B.S. Adel. Priestley, H., M.D., Ch.M., B.Sc. McCaughey Assoc. Prof. Lectrs. & Demrs. : Cotton, F. S., B.Sc.

McQuiggin, H. G., M.B., Ch.M., B.Sc.

Wardlaw, H. S. H., D.Sc. Hindmarsh, Ellen M., B.Sc. 2 Demrs.

Psychology Lovell, H. T., M.A., Ph.D. Jena McCaughey Prof.

Martin, A. H., M.A., Ph.D. Col. Lectr.

I Demr.

Veterinary Science M.R.C.V.S., D., J. Stewart, B.V.Sc. Dean & Prof. Carne, H. R., B.V.Sc. (V. Path. and Bact.) Gunn, R. M. C., B.V.Sc., B.Sc.Agr. Birm. & Syd., M.R.C.V.S. (V. Surg. & Anat.) Lectr.

Henry, M., D.S.O., B.V.Sc., M.R.C.V.S. (Vet. Juris.) Lectr.

D.V.Sc. (V. Clunies-Ross, Ι., Parasitol.).

Jones, J. R., B.V.Sc. (V. Mat. Med. and Pharm.) Lectr. Drabble, J., B.V.Sc. (Meat In-

spection) Lectr. Whitehouse, F., B.V.Sc. (Zoo-Lectr.

Dakin, W. J., D.Sc. Liv., F.L.S. Challis Prof.

Briggs, E. A., D.Sc.

Lectr. & Demr.

Colefax, A. N., B.Sc. Acting Lectr. & Demr.

Woodhill, A. R., B.Sc.Agr. (En-McCaughey Lectr. tomol.)

### Engineering

[Challis Prof. CivilMiller, W. A., B.Sc. Glas., M.E.

Vogan, H. J., B.E. Lectr. & Demr.

Leech, T. D. J., B.Sc., B.E. Lectr. & Demr.

Lectrs.: Bickford, C. R. (Harbour and Docks).

Larkins, H. M., B.E. (Irrigation). Nicol, T. B., B.E. (Water Supply and Sewerage).

Vicars, J., M.E. (Road Pavement). Hodgson, C. A., M.A. Camb. (Econ. of Rly. Transport).

-Survey). Aston, R. L., B.Sc., B.E. ing, etc.).

3 Demrs.

Electrical

Madsen, J. P. V., B.E., D.Sc. Russell Prof. Adel.

Lectrs. & Demrs.: Sharp, L. H., B.Sc., B.E. Campbell, E. F., B.E.

Mechanical

Barraclough, Sir H. E., K.B.E., V.D., M.M.E. Corn., B.E., M.I.M.E., M.I.C.E.

Dean & Russell Prof. Sutherland, G. F., A.R.C.S.

Asst. Prof.

Lectrs. & Demrs.: Swain, H. J., B.A., B.Sc., B.E. (Internal Combust. Engines). Gibson, W. H. H., B.Sc., B.E.

Hart, K. R. M., B.Sc., B.E. 3 Hon. Lectrs.

3 110n. Lecus.

Mining [Russell Lectr. Power, F. Danvers, F.G.S.

Technology and Metallurgy
Eastaugh, F. A., A.R.S.M., F.I.C.
Assoc. Prof.

1 Demr.

Law, v. also Com.

Peden, The Hon. Sir John B., K.C.M.G., K.C., B.A., LL.B., M.L.C. Challis Prof.

Bankruptcy and Probate Kitto, F. W., B.A., LL.B.

Challis Lectr.

Contracts, Merc. Law, Torts

Contracts, Merc. Law, Torts Sugerman, B., LL.B.

Challis Lectr.

Conveyancing [Challis Reader. Watts, P. R., B.A., LL.B.

Criminal Law [Lectr. Treatt, V. H., B.A., B.C.L. Ox.

Divorce [Challis Lectr. Mackenzie, W. K. S., D.S.O., B.A.

Equity and Company Law Roper, E. D., B.A., LL.B.

Challis Lectr.

International Law & Jurispr.
Charteris, A. H., M.A., LL.B.
Edin. Challis Prof.

Legal Ethics

Barton, E. A. Lectr.

Legal History [Lectr.

Windeyer, W. J. V., B.A., LL.B.

Legal Interpretation

Chambers, R., B.A., LL.B.
Challis Lectr.

Procedure, Evidence, & Pleading McMinn, W., B.A., LL.B.

Challis Lectr.

Roman Law [Challis Lectr. Nield, J. R., B.A., LL.B.

#### Medicine

(for subjects of first 2 yrs.—Anat., etc., v. supra)

Anæsthetics

Lidwill, M. C., M.D. Lectr. Stokes, E. H., M.B., Ch.M. Tutor. Maude, J. D., M.B., Ch.M. Tutor. Heath, L. B., M.B., Ch.M. Tutor. Hotten, W. I. T., M.B., Ch.M.

Tutor.

Bacteriology [Bosch Prof.
Wright, H. D., B.A. Tas., M.D.,
Ch.B., D.Sc. Edin.

Goldsworthy, N. E., M.B., Ch.M., Ph.D. Lond. Lectr.

Cancer Research

Chapman, H. G., M.D., B.S. Melb. Director of Research.

Sandes, F. P., M.D., Ch.M., B.Sc. Director of Treatment.

Asst. Med. Radiotherapists:

Keatinge, Leila K., M.B. Nisbet, A. T., M.B., Ch.M. Moppett, W., M.D., Ch.M.

Med. Biologist.

Bio-Chemists:

Bishop, W. B. S., M.Sc.

Bosch Res. Fellow.

Mankin, Winifred R., M.Sc.

Horning, E. S., M.A. Ox., D.Sc.
Melb. Cytologist.
Bannon, J., B.Sc. Physicist.

Love, W. H., B.Sc. Physicist. Goulston, Daphne L., B.Sc.

Research Fellow.

Harker, G., D.Sc. Research Worker. Stokes, E. H., M.B., Ch.M. Welsh, A. M., M.B., Ch.M. Taylor, R. J., M.B., Ch.M. Pathologist. Obstetrics Radium Registrars: Windeyer, J. C., M.D., Ch.M., Kenny, R. H., M.B., B.S. M.R.C.S., L.R.C.P. Prof. Miller, I. D., M.B., Ch.M. D'Arcy, Constance E., M.B., Ch.M. Bray, Sylvia D., M.B. Lectr. Wilkins, T., B.E. Ludowici, E., M.B., Ch.M. Lectr. Consulting Engineer. Harper, Margaret H., M.B., Ch.M. Diseases of Ear, Nose, Throat (Mothercraft) Lectr. Godsall, R. S., M.B., Ch.M., Gibson, A. J., M.B., Ch.M. Tutor. F.R.C.S. Lectr. Donovan, H. C., M.B. Tutor. Diseases of the Skin Hipsley, P. L., M.D., Ch.M. Demr. [Lectr. Ridler, H. A., M.B., Ch.M. Demr. Molesworth, E. H., M.D., Ch.M. Farquharson, Alice M. (Mother-Gynæcology craft) Demr. Davies, R. L., O.B.E., M.B., Ch.M., Ophthalmology F.R.C.S. Lectr. Waddy, R. G., M.B., Ch.M. Infectious Diseases Lectr. Lectr. (on leave). Millard, R. J., C.M.G., M.B., Ch.M. Brearley, E. A., B.A., M.B., Ch.M. Materia Medica Actg. Lectr. MacPherson, J., M.A., M.B., Pathology Welsh, D. A., M.A., B.Sc., M.D., Ch.M., B.Sc. Lectr. F.R.C.P. Edin. Prof. Medical Jurispr. and Ethics Inglis, K., M.D., Ch.M. Todd, R. H., B.A. Ox., M.D., Lectr. & Chief Demr. Ch.B. Dub. (on leave) Lectr. Walker, A. S., M.D., Ch.M. Demr. Palmer, A., M.B., Ch.M. Welsh, A. M., M.B., Ch.M. Demr. Acting Lectr. 4 Hon. Demrs. Medicine [Bosch Prof. Lambie, C. G., M.C., M.D. Edin., PharmacyFinnemore, H., B.Sc. Lond., F.I.C. F.R.C.P., F.R.S.E. Large, Dorothy K. Sr. Demr. Medicine, Clinical 2 Demrs. Lectrs.: Preventive Medicine . Blackburn, C. B., O.B.E., M.D., Sutton, H., O.B.E., M.D., Ch.B. Ch.M. Melb. Prof. Fairfax, E. W., M.B., Ch.M. Psychiatry Ritchie, H. J., M.B., Ch.M. Dawson, Wm. S., M.A., M.D. Ox., Holmes à Court, A. W., M.D., D.P.M. Prof. Ch.M. Stephen, E. H. M., M.B., Ch.M. Surgery Diethelm, O. A., M.B., Ch.M. Dew, H. R., M.B., B.S. Melb., F.R.C.S. Bosch Prof. Med. Tutors: McDonald, C. G., M.B., Ch.M. Surgery, Clinical Hughes, L. H., M.D., Ch.M. Lectrs.: Poate, H. R. G., M.B., Ch.M. Walker, A. S., M.D., Ch.M. Harvey, W. C., M.B., Ch.M. McKelvey, J. L., M.B., Ch.M. Stacy, H. S., M.D., Ch.M. Willcocks, G. C, M.B.

Evans, Wilfred, M.B.

Aspinall, A., M.B., Ch.M.

Wade, R. B., M.D., Ch.M.
Coppleson, V. M., M.B., Ch.M.
Tutors:
Farranridge, T., M.B., Ch.M.
Furber, T. M., M.B., Ch.M.
McCredie, D. W., M.B., Ch.M.
Money, R. A., M.B., Ch.M.
Sharp, W.A. Ramsay, M.B., Ch.M.,
F.R.C.S. (Edin.)
McIntosh, A. M., M.B., Ch.M.
Kay, W., M.B., Ch.M.
Perry, W., M.B., Ch.M.

#### Dentistry

Reading, R. F., M.R.C.S., L.R.C.P., L.D.S. Eng. McCaughey Prof. Burne, A. D., D.D.S. Lectr. Marshall, F., C.M.G., D.D.S. (Mech. D.) Lectr.
Gates, E. C., D.D.S. (Clin. D.) Lectr.
Ash, P. A., D.D.S. (Surg. D.) Lectr.
Smith, Donald (Surg. D.) Lectr.
Charlton, P. C., D.M.D., L.D.S.
Eng., F.A.C.D. (Dental Mat. Med.)
2 Demrs.

#### University Extension

Mackay, I. G., C.M.G., D.S.O., B.A. Secy. to the Board. Portus, G. V. (v. supra, Econ.)

Dir. of Tutorial Classes. Bland, F. A. (v. supra, Econ.)

Asst. Director.

r full-time tutor and 41 tutorial class lectrs.

### COLLEGES WITHIN THE UNIVERSITY

St. Paul's College (Anglican). Warden—Rev. A. H. Garnsey, M.A. Sub-Warden—M. R. Morey, B.Sc. 5 other Lectrs.

St. John's College (R.C.). Rector—Very Rev. M. J. O'Reilly, D.D., C.M. Vice-Rector—Rev. J. E. Thompson, C.M., M.A., Dip.Ed. Ox. 6 other Lectrs.

St. Andrew's College (Presb.). Principal—E. E. Anderson, M.A., D.D. Aberd. Vice-Principal—J. G. Stephens, B.Sc., M.B., Ch.M. 14 other Profs. and Lectrs.

Wesley College (Methodist). Master—Rev. L. E. Bennett, M.A. Melb., B.D. Lond. Vice-Master—W. E. Fisher, M.B., Ch.M. 5 Lectrs.

THE WOMEN'S COLLEGE (undenominational). Principal—Miss S. J. Williams, M.A. Melb. and Syd. 6 Lectrs.

SANCTA SOPHIA COLLEGE (R.C. Women). Principal—Mother Helen Boydell. Vice-Principal—Mother Mary Arnold. 5 Lectrs.

### GENERAL INFORMATION

Founded by Act of the N.S.W. Legislature in 1850, the Univ. was granted a Royal Charter in 1858. Its development has been largely due to private benefactions, notably those of J. H. Challis—£250,000—in 1880, T. Fisher—£30,000 for Library—in 1885, P. N. Russell—£100,000 for School of Engineering, etc.—in 1896 and 1904, W. O. Watt, £78,354, 1925—1928, and G. H. Bosch, £249,000, 1927—1928. Under the will of Sir S. McCaughey it receives an annual income which amounted in 1930 to £23,020. In 1912 the Statutory endowment was raised from £10,000 to £20,000, with provision for further automatic increases, and at the same time the constitution of the governing body, called the Senate, was altered so as to include 6 nominees of the Govr. and Parliament (one-fourth of the whole number). In 1917—18 the Statutory endowment was further increased to £32,000, including £2000 for the new School of Archit. In

1919 the State provided £50,000 a year for 6 years for additional buildings. The Faculties were in that year increased from 4 to 10. The grounds, which include the sites of the Colleges grouped round an oval, cover 140 acres.

Provision was made by Act of Parliament soon after the foundation of the Univ. for endowing such Colleges as might be established within it, to the extent of £20,000 in aid of building and £500 p.a. towards the Principal's salary.

The Fisher Library, endowment £30,000, 200,000 vols., receives about 1800 serial publications. Museums: Nicholson collection of Egyp., Greek, Roman and Medieval Antiq. (4000 specimens); Macleay Nat. Hist.; Anat., Geol., and Zool.; Obstetric, Materia Medica. Laboratories: Schools of Med., Engin. and Archit. (atelier), Bot., Chem. (including Metall. and Research), Geol. (with rock analysis Research), Phys., Zool. The ROYAL PRINCE ALFRED HOSPL., erected on the Univ. grounds as a general hospl. and school, has 518 beds. Gladesville mental hospl. recognized by Camb. for clinical work for Dip. Psych. Med.

FACULTIES. Arts, Law, Med., Science, Engin., Dent., Vet. Sc., Agric., Econ., Archit.

COMMONWEALTH SCHOOL OF PUBLIC HEALTH AND TROPICAL MEDICINE. The School acts as the teaching and examn. centre for the Univ.'s Diplomas of Public Health, Trop. Medicine, and Trop. Hygiene. In addition a course in Preventive Med. is given, and lectures in School Hygiene for the Diploma in Education. Short courses are also given in Architectural Hygiene, Social Hygiene, and Trop. Hygiene. The School is financed by the Commonwealth Health Dept., but all teaching is directly controlled by the Univ. and the Fac. of Med., together with all matters concerning diplomas, syllabuses, fees, examns., etc. An Advisory Council, under the Chairmanship of the Director-General of Public Health, Commonwealth of Australia, deals with all matters of policy. The staff consists of a Director (also Prof. of Preventive Med.), 4 Med. Officers (incl. 2 Deputy Directors), and a number of Visiting Lectrs.; r Entomologist, 4 Tech. Assts., and 3 Clerks. The D.P.H. requirements are those of the General Medical Council of Gt. Britain, the D.T.M. corresponds to similar courses at the London School of Hygiene and the Liverpool School of Tropical Medicine. The main divisions of the School are those of Chem. and Physics, Bacteriol. and Pathol., Parasitol., Entomol., Indust. Hygiene. An excellent Library, especially in Trop. Med. and Hygiene, is available. Adequate accommodation is available for research students.

Degree Courses: 3 yrs.—B.A., B.Sc.; 4 yrs.—Honours B.Sc., B.Sc. in Agric. (3 after Agric. Coll. course), B.Ec., LL.B., B.D.S., B.V.Sc., B.E. (in Civil Engineering, Mechanical and Electrical Engineering, Mining and Metallurgy, or Engineering Technology); 5 yrs.—B.Arch.; 6 yrs.—M.B., B.S.; 2 yrs.' advanced study or research (after full 3 yrs.' course at another Univ.)—B.A. or B.Sc. The LL.B. qualifies conditionally for admission to the bar. Law students usually take the B.A. first, selecting Law subjects in 3rd yr., and complete combined course in 6 yrs., thereby gaining concessions in regard to periods of studentship and service as articled clerk. Higher Degrees. Obtainable by bachelors of 2 yrs.' standing—M.A., M.Ec., LL.D., M.D., M.S., M.Sc.; 3 yrs.—D.Sc., M.E.; 5 yrs.—D.Sc. Eng.; D.Dent.Sc.; D.V.Sc., D.Sc.Agr. Diplomas. Educn. (for graduates in Arts or Sc.), 1 yr.'s course; Com., 3 yrs.; D.P.H.; D.T.M. D.T.H.; Psychiatry; Anthropology; Journalism; Public Administration. Candidates for the Diploma of the Pharmacy Board have to attend courses in the Univ.

RECOGNITION OF STUDIES ELSEWHERE. A considerable portion (in Med.

3 yrs.) of the curriculum for a Degree must be taken in Sydney. Holders of the Diploma of the *Hawkesbury Agricultural College* or any college of similar standing who have passed the Intermediate Certificate Examn. in matriculation subjects may be admitted as matriculated students in Vet. Sc. or Agriculture.

Scholarshiffs, etc., for Graduates. Junior Demrs. are appointed annually in each Scientific Dept. with the obligation to carry out research under the direction of the Prof.; 6 post-grad. Scholarships of £200 each and 2 of £300 are awarded annually for scientific study and research in the Univ.; 4 Macleay Fellowships of £400 p.a. each are tenable by B.Sc.'s; 4 others of £300 p.a., and 2 Scholps. of £250 p.a., tenable for 2 yrs., are awarded annually for further study and research at Syd. or abroad.

RESIDENCE. The four denominational Colls. (v. supra) provide accommodation for about 260 students; the Women's Coll. for about 70, and Sancta Sophia College for 50 R.C. women students.

UNIVERSITY EXTENSION LECTURES are given in courses of from 3 upwards in Sydney and numerous local centres. *Tutorial Classes* are provided, as prescribed by the Act of 1912, under the superintendence of a Joint Committee of the Univ. and Workers' Educl. Assocn. of N.S.W. In 1930 the Govt. grant for this purpose was £5960; 55 classes were at work, including 1620 effective students.

Adult Matriculation. Persons of distinct educational merit who have attained the age of 25 yrs. may be admitted as matriculated students in the Faculties of Arts, Science, and Econ.

Publications. Calendar publ. in June, 4s., with annual report and list of publicns. of Univ. Staff; Reprints of Scientific Papers by members of the Staff; Hermes, an undergrads.' mag., 5s. p.a. (3 issues); The Union Recorder (weekly during Term).

### THE YEARS 1930, 1931

Benefactions. Dr. Gordon Craig, £8000 for Dept. of Urology; Dr. H. M. Moran, £1000, and Countess Freehill, £1000 for a Lectureship in Italian; Rockefeller Foundation of New York, £100,000 for buildings for new depts. of Med., Surg., Bacteriol.

RETIREMENTS AND RESIGNATIONS. Prof. A. Radcliffe Brown (Anthropol.), Dr. J. C. Cosh (Med.), Mr. R. K. Harris (Archit.), Dr. K. D. McDonald (Anat.), Dr. P. D. F. Murray (Zool.), Mr. R. K. Newman (Cancer Res.), Dr. J. G. Stephens (Cancer Res.), Dr. J. C. Storey (Surg.), Dr. M. P. Susman (Cancer Res.), Mr. E. R. Walker (Econ.).

DEATH. Mr. N. de H. Rowland (Law).

Students. Matriculated students, 2504; post-graduate students, 153; non-matriculated students, 462.

DEGREES. M.A., 9; B.A., 161; LL.D., 2; LL.B., 49; M.D., 1; M.B., 58; B.S., 53; Ch.M., 1; D.Sc., 1; M.Sc., 4; B.Sc., 51; M.E., 2; B.E., 17; B.D.S., 16; B.V.Sc., 3; D.Sc.Agr., 1; B.Sc.Agr., 4; B.Ec., 29; B.Arch., 9. Total. 471.

### UNIVERSITY OF TASMANIA, HOBART

VISITOR-H.E. THE GOVERNOR.

CHANCELLOR—Hon. Sir Neil Elliott Lewis, K.C.M.G., M.A., B.C.L. VICE-CHANCELLOR—W. J. T. Stops, LL.B.

REGISTRAR-Lt.-Col. L. R. THOMAS, D.S.O., J.P.

LIBRARIAN-E. MORRIS MILLER, M.A., Litt.D.

### PROFESSORS, LECTURERS, ETC.

Accountancy and Auditing
Hewer, A. R., A.I.C.A. Lectr.

Biology

..... Ralston Prof.

Botany [Lectr. Travers, Isobel D., B.A., B.Sc.

Chemistry

MacLeod, P. J., B.A. N.Z. Lectr. Kurth, E. E., B.Sc.

Lectr. (Applied Chem.).

Classics

Dunbabin, R. L., M.A. Ox. Prof.

Economics

Hytten, T., M.A. Prof. Wilson, R., B.Com., D.Phil. Ox.,

Ch.D. Chic.

Lectr.

Education

Johnson, J. A., M.A. N.Z. Lectr.

Engineering

Burn, A., B.E. Syd., M.Sc. Prof. Tuck, H. P., B.Sc., B.E. Adel.

Lectr. (Elec. E.).

Schneider, W. H., B.E. Adel. Lectr. (Mech. E.).

Field, J.

Lectr. (Drawing and Design).

English Lang. and Literature
Taylor, A. B., M.A. Ox. Prof.

Williams, Wm. H., M.A. Camb. (E. Lit.) Emer. Prof. History [Lectr.

King, C. S., M.C., M.A. Ox., B.A.

Law

McDougall, D. G., M.A., B.C.L. Ox., M.A., LL.D. Melb. Prof. Doyle, G. L., LL.B. Lectr. Wright, R. C., B.A., LL.B. Lectr.

Mathematics

Pitman, E. J. G., M.A., B.Sc.
Melb.
Prof.

Lowenstein, Edith R., M.A. Melb. Lectr.

Modern Languages

Malthus, C., M.A. N.Z. Lectr. MacFarlane, C.W., B.A. Asst. Lectr.

Psychology and Philosophy

Miller, E. Morris, M.A., Litt.D. Melb. Prof.

Physics

McAulay, A. L., M.A. Camb., Ph.D. Manc., B.Sc., F.Inst.P. Prof.

Cruickshank, F. D., B.Sc. Asst. Lectr.

### Tutorial Class Lectrs.

Wilson, R. (Director), and 2 other Lectrs.

### AFFILIATED SCHOOLS

ZEEHAN SCHOOL OF MINES AND METALLURGY.

MT. LYELL SCHOOL OF MINES AND INDUSTRIES.

HOBART TECHNICAL COLLEGE.

LAUNCESTON TECHNICAL COLLEGE.

### GENERAL INFORMATION

Founded in 1890 under an Act of the Tasmanian Legislature, the Univ. was, in 1915, granted a Royal Charter. To the original Faculties—Arts, Science, and Law—Commerce was added in 1919 and Engineering in 1922. The annual Govt. grant is £10,273.

Admission of Persons of Mature Age. Persons not below 25 yrs. of age who satisfy Board of Studies that they possess sufficient qualifications for the courses they propose to pursue may be exempted from the ordinary requirements for matrice.

LIBRARY, 28,000 vols. LABORATORIES: Chem., Phys., Biol.; Testing plant in Engin. Dept. Facilities for investigation in Elec. Engin. Observatory, 8" reflector telescope.

Degree Courses: 3 yrs., B.A., B.Sc., LL.B. (after 1 yr. of Arts course); 4 yrs., B.Com., B.Eng. Higher Degrees. Open to Bachelors of 2 yrs.' standing, M.A., M.Sc., LL.M., M.Com.; 3 yrs., D.Sc.; to Masters of 3 yrs.' standing, LL.D. Diplomas of the Affiliated Schools: Metal Mining; Metall., Chem., and Assaying. Certificate of Commerce, 2 yrs.' course. Diploma of Public Administration, 3 yrs.' course.

University Extension. Tutorial classes, annual grant, £1400.

Public Examinations. Intermediate and Leaving; Music (held in conjunction with other Australian Univs.).

Publications. Calendar (Aug.), 2s.; Pub. Examn. Manuals, 2s.; Degree Examn. Papers, 1s. Univ. news appears in Hobart Mercury. Students' Magazine, Platypus.

### THE YEAR 1930

EXTRA-MURAL WORK. W.E.A. and Tutorial Classes.

Benefactions. Carnegie Corporation of New York, 2500 dollars for extension of Adult Education.

STUDENTS. Full-time: total, 247. Part-time: total, 132, incl. 9 graduates. Degrees. B.A., 12; B.Sc., 6; B.E., 3; LL.B., 5; B.Com., 3.

### UNIVERSITY OF WESTERN AUSTRALIA, PERTH

VISITOR-H.E. THE GOVERNOR.

CHANCELLOR—The Hon. Sir Walter H. James, K.C.M.G., K.C. Pro-Chancellor-The Hon. John Alfred Northmore, LL.B. VICE-CHANCELLOR-Emeritus Professor H. E. WHITFELD, B.A., B.E., M.I.M.M. Warden of Convocation—G. S. J. Norton, B.E. CLERK OF RECORDS AND EXAMNS.—A. S. PRESHAW, B.A., A.A.I.S. ACCOUNTANT AND CLERK OF CONVOCATION-R. E. PARKER, L.I.C.A., A.A.I.S. LIBRARIAN-M. EVALYN WOOD, B.A. PROFESSORS AND LECTURERS, ETC. Agriculture Storrs, Rev. C. E., M.A. Camb. Paterson, J. W., B.Sc. Edin., Lectr. Ph.D. Leip. Prof. Economics Shann, E. O. G., M.A. Melb. Prof. Pt.-time Lecturers: Solomon, S. E., B.A., B.Com. Tas. Teakle, L. J. H., B.Sc., Ph.D. Calif. (A. Chem.). Lectr. Baron-Hay, G. K., B.Sc. (Dairying). Education Cameron, R. G., M.A. Syd. Prof. Wickens, G. W., (Hortic.). 9 Part-time Lectrs. Gardner, C. A. (A. Bot.). Pittman, H. A., B.Sc.Agric. Syd. Engineering (Plant Pathol.). Fraenkel, P. H., B.E.E. Melb., M.I.E.E., M.I.E.A., M.I.V.E. Architecture Wright, A. R. L., L.R.I.B.A., Assoc. Prof. F.R.I.A.W.A. Lectr. Bowden, A. T., B.Sc. Edin. Lectr. Blakey, O. F., M.E. Q'land. Lectr. Biology Routley, W. F. Lectr. Nicholls, G. E., D.Sc. Lond., Lectr. Wood, W. E. A.R.C.Sc. Wiseman, W. R. B., M.Sc. Manc. Bennett, E. W., M.Sc. N.Z. Lectr. Asst. Lectr. Botany I Instr. Reed, Eileen R. L., M.Sc. Adel. [Prof. and Tor., F.L.S. English Lectr. Murdoch, W. L. F., M.A. Melb. Chemistry Thompson, H. S., M.A. .Lectr. Wilsmore, N. T. M., D.Sc. Melb., Sinclaire, F., M.A. N. Zeal. Lectr. F.I.C. Prof. Tattersall, G., M.Sc. Manc., F.I.C. Fine Art Morison, G. P. Lectr. Assoc. Prof. Lectr. MacLeod, J. Elliott, G. A., Ph.D. Lond. Lectr. Demr. Babington, P. Forestry Kessell, S. L., M.Sc. Adel., Dip.For. [Assoc. Prof. Classics Ox. Lectr.

Wood, G., M.A. Aberd. and Oxon.

French and German	
Clarke, Margaret A., M.A.	Syd.,
D. ès L. Paris	Lectr.
Howard, J. L.	Lectr.
Graebner, R. M., B.A.	Lectr.
Glauert, L., B.A.	Tutor.
Geology	
Clarke, E. de C., M.A. N.Z.	Prof.
	Lectr.
Terrill, S. E., B.Sc. Adel.	Demr.
History	[Lectr.
Alexander, F., M.A. Melb. a	
Italian	
Italian	
<i>Italian</i> Vanzetti, F.	Lectr.
Italian Vanzetti, F. Law	Lectr.
Italian Vanzetti, F. Law Beasley, F. R., B.A. Ox.,	Lectr.
Italian Vanzetti, F. Law Beasley, F. R., B.A. Ox., Syd.	Lectr. LL.B. Prof.
Italian Vanzetti, F. Law Beasley, F. R., B.A. Ox., Syd. Tindal, E.	Lectr.  LL.B. Prof. Lectr.
Italian Vanzetti, F. Law Beasley, F. R., B.A. Ox., Syd. Tindal, E. Blanckensee, E.	Lectr.  LL.B. Prof. Lectr. Lectr.
Italian Vanzetti, F. Law Beasley, F. R., B.A. Ox., Syd. Tindal, E. Blanckensee, E. Virtue, J. E., LL.M. Melb.	Lectr.  LL.B. Prof. Lectr. Lectr.
Italian Vanzetti, F. Law Beasley, F. R., B.A. Ox., Syd. Tindal, E. Blanckensee, E. Virtue, J. E., LL.M. Melb. Stow, F. L., LL.D.	Lectr.  LL.B. Prof. Lectr. Lectr. Lectr. Lectr.
Italian Vanzetti, F. Law Beasley, F. R., B.A. Ox., Syd. Tindal, E. Blanckensee, E. Virtue, J. E., LL.M. Melb.	Lectr.  LL.B. Prof. Lectr. Lectr. Lectr. Lectr.

Weatherburn, C. E., M.A. Camb., D.Sc. Svd. Prof. Moir, Margaret B., M.A., D.Sc. Glas. Lectr.

Music

Leckie, A. J., Mus.Bac. Adel., F.R.C.O. Lectr.

Philosophy [Assoc. Prof. Fox, A. C., M.A. Syd.

Psychology [Lectr. Fowler, H. L., M.A., Ph.D. Lond.

**Physics** 

Ross, A. D., M.A., D.Sc. Glas., F.R.S.E., F.R.A.S., F.Inst.P. Prof.

Shearer, J., B.A., M.Sc. Melb.

Lectr. Nimmo, R. R., M.Sc. N.Z.. Ph.D. Camb. Lectr. Everson, D. W. Demr.

Spanish

Sinclaire, F., M.A. N.Z. Lectr.

Surveying

Nunn, G. M., L.S. Lectr.

Veterinary Science

Le Soeuf, E. A., B.V.Sc. Melb., F.Z.S.

Weston, E. A., B.V.Sc. Melb. Asst.

University Extension

3 Tutors for Correspondence Courses.

Adult Education

Sinclaire, F., M.A. N.Z. Director. 4 Tutors.

### AFFILIATED SCHOOLS

PERTH TECHNICAL COLLEGE, SCHOOL OF MINES, KALGOORLIE, and MURESK AGRICULTURAL COLLEGE.

### GENERAL INFORMATION

Established by Act of the State Legislature in 1911, the Univ. opened its first session in 1913. It has a large endowment of land granted by Govt., including a site of 165 acres for buildings, and receives an annual grant of £31,000. The administration is vested in a Senate of 18 persons, of whom 6 are nominated by Govt.

LABORATORIES. Agric., Bot., Chem., Geol., Engin., Phys., Psych., Vet. Sc., Zool.

FACULTIES. Arts, Sc. (including Agric.), Engin. (including Surveying), Law-DEGREE COURSES: 3 yrs.—B.A., B.Sc.; 4 yrs.—B.A. (Hons.), LL.B. and B.Sc. (Hons.); 5 yrs.—B.E. (a sandwich system during last 3 yrs.) and B.Surv. (including 2 yrs.' field work). First year Med. course in Fac. of Sc.

PERTH

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EVENING CLASSES are held in the Arts Faculty only, but certain Science classes may be taken in the evenings at affiliated Colleges.

HIGHER DEGREES. M.A., LL.M., LL.D., M.Sc., M.E., Litt.D., D.Sc.

DIPLOMAS. Education, Agric., Journalism, Commerce.

Public Examinations. School Certifs. (Junr. and Leaving), Art Certif., Music, and Elocution.

ADULT MATRICULATION. Persons who have attained the age of 25 yrs. may be admitted as matriculated students if the Faculty concerned is satisfied that they possess sufficient educational qualifications. The Faculty of Arts requires a modified examination; other faculties do not require any examination.

Publications. Calendar (Oct.) (no 1932 issue); Public Examn. Manual; Black Swan (Students' Magazine); Pelican (Students' fortnightly newspaper).

### THE YEARS 1930, 1931

BUILDINGS. Work in progress on the Main Hackett block of buildings (contract price, £181,000), the foundation stones of which were laid on April 23, 1929. Lecture rooms, administrative offices, library, and students' wing are now in use. St. George's College, a Residential Coll. for Univ. students (cost about £100,000), was opened this session.

New Developments. History has been made a separate Dept. under Mr. F. Alexander, M.A.

EXTRA-MURAL WORK. 36 Extension lectures were given in 9 towns during 1930, in addition to numerous broadcasted lectures. The Adult Education Scheme, commenced with 6 groups in 1929, was continued in 1930 with 8 groups.

STAFF VISITS. The Vice-Chancellor (Prof. H. E. Whitfeld) and Mr. H. S. Thompson travelled to Europe in 1931 on leave and visited various Univs. and Conferences.

STUDENTS (1931 enrolments). (i.) Attending Degree or Diploma Courses: Total, 722; full-time, 351; part-time, 251; external, 33; graduates taking higher degrees, 34; graduates taking single subjects, 9; graduates taking Diploma in Education, 44. (ii.) Taking single subjects, 117.

Degrees conferred, 1931. B.A., 45; M.A., 6; LL.B., 4; B.Sc., 23; B.Sc. (Agric.), 3; B.Sc. (For.), 2; M.Sc., 1; B.E., 6; B.Surveying, 1; Dip.Ed., 22.

### UNIVERSITY OF NEW ZEALAND

Address—P.O. Box 1524, Wellington.

VISITOR-H.E. THE GOVERNOR-GENERAL.

CHANCELLOR-J. MACMILLAN BROWN, M.A., LL.D. Glas.

PRO-CHANCELLOR-Hon. J. A. HANAN, M.L.C.

VICE-CHANCELLOR—Prof. T. A. HUNTER, M.A., M.Sc.

CHAIRMAN, ACADEMIC BOARD—Prof. H. W. SEGAR, M.A. Camb., Auckland.

REGISTRAR-E. T. NORRIS, M.A., Wellington.

ACTING-AGENT IN ENGLAND—A. J. HARROP, M.A., Ph.D., 88 Gower Street, London, W.C.r.

#### CONSTITUENT COLLEGES

University of Otago, Dunedin; Canterbury College, Christchurch; Auckland University College; Victoria Univ. College, Wellington.

### ASSOCIATED COLLEGES

Canterbury Agricultural College, Lincoln; Massey Agricultural College, Palmerston North.

This University, an examining body, was founded in 1870. Its constitution, defined by the N.Z. Univ. Act. 1908 as amended in 1912, 1914, 1915, and 1926, vests the Government of the Univ. in a Senate of 23 members, assisted, as regards schemes of study, etc., by an Academic Board representing the College Professorial Boards and a University Entrance Board, of which the Vice-Chancellor is the President, and on which there are representatives of the Academic Board, the Department of Education, and the Secondary Schools. The Senate consists of 4 members nominated by the Governor, 8 appointed by the College Governing Bodies, 5 by General Court of Convocation, 3 by the Academic Board, 1 by the Senate itself, and the Director of Education. The Chancellor, Pro-Chancellor, and Vice-Chancellor are elected by the Senate; the first (or, in his absence, the second) presides at meetings of the Senate. Under the New Zealand University Amendment Acts of 1926 and 1928 and the Massey Agricultural College Act, 1927, Canterbury Agricultural College, Lincoln, and Massey Agricultural College, Palmerston North, are deemed to be parts of Canterbury University College, Christchurch, and Victoria University College, Wellington, or Auckland University College respectively, and the expression "Professors of the University" includes Professors on the staffs of the two Agricultural Colleges as well as Professors on the staffs of the four Constituent Colleges. There are no University buildings: the offices are at Wellington.

MATRICULATION. Candidates must pass in 5 subjects, including English, Maths., and one language. A candidate who does not pass in Latin or Greek must pass in Physics or Chemistry or Home Science, or Botany or

Agriculture. Not more than two of these sciences can be taken; in the syllabus prominence is given to their practical aspect. The examn, is held in Dec. Special provision is made for exemption of persons not under 25 years of age and students from other Univs.

Terms. A student presenting himself for a Univ. examn. for which the keeping of terms is required must have passed the College examn. in the subjects he offers at the corresponding stage. The terms are: Autumn (March-May), Winter (June-Aug.), and Spring (Sept.-Oct. or Nov.). The subjects in which terms must be kept are: all those of the B.A., B.Sc., B.Sc. in H.Sc., M.B., Ch.B., B.D.S., B.Agr.Sc., B.For.Sc., B.Arc., and LL.B. degree courses; of the 1st and 2nd Groups of the B.Com. course; of the Engineering Intermediate examn.

Any student who is on the books of a constituent College, and who has passed its annual examn., is deemed to have kept the terms of the year if he has attended the prescribed courses, or, being resident more than 10 miles from College or engaged in acquiring a profession or trade or earning a livelihood, has been thereby prevented from attending, or objects on grounds of religious scruples to such attendance.

Degree Courses: 3 yrs.—B.A., B.Sc., B.Mus., B.Agr.Sc. (including practical work on farm), B.For.Sc.; 4 yrs.—B.Sc. in Home Science, B.Arch. (including 18 mos.' practical work), LL.B., B.E. (Mech., Elec., Civ., Mining, Metall., including from 9 to 18 mos. in shops, mines, or surveying), B.Com., B.Vet.Sc.; 5 yrs.—B.D.S.; 6 yrs.—M.B., Ch.B., B.Med.Sc.

HIGHER DEGREES. M.A., M.Sc., LL.M., M.Com., M.S.; Litt.D., D.Sc., LL.D., M.D., D.D.S., D.Mus. For the Mastership examn. and thesis are required. The Doctorate may be taken by a Bachelor of 5 yrs.' (in Med. 3 yrs.') standing who offers suitable original work and, if in Arts, Sc., or Law, has already obtained the Mastership or equivalent degree, or, if in Med. or Music, passes a prescribed examn.

DIPLOMAS. D.P.H. (9 mos.' course); Journalism, Education, Social Science, Banking, Insurance, Fine Arts. *Certificate* of Proficiency in Dental Surgery, Shipping Officers' *Certificate*.

Professional and Technical Schools. Law and Commerce at all the constituent Colls.; Medical and Dental and Home Science at Otago; Engineer ing (Civil, Electrical, and Mech.) at Canterbury and Auckland; Mining and Metallurgical Engineering at Otago; Music at Auckland, Canterbury, and Otago; Agric. at Lincoln and at Palmerston N. (Massey College); Forestry at Canterbury; Architecture at Auckland; Fine Arts at Canterbury.

"AD EUNDEM" RECOGNITION. Courses completed, or partially completed, at any British chartered or other approved Univ. are accepted ad eundem.

Scholarships for Graduates. In almost every subject of the B.A. or B.Sc. syllabus and in Law, Medicine, Dentistry, and Engineering—£70; Travelling Scholps. in Arts, Science, French, Law, Architecture—£200 (2 yrs.) each, in Engin. and Med.—£150 each; Macmillan Brown Research Scholp. in Agr. (biennial)—£200 (2 yrs. possible). Four National Research Scholarships (£180) are offered annually to graduates of the N.Z. University or other approved persons.

Three first-class return passages to England are granted annually to graduates proceeding to Europe to continue their studies.

ADULT EDUCATION. Classes are conducted under the control of the Council

of each College through an Executive Committee on which the Council and the W.E.A. are represented. The Government granted £4520, of which £300 was allotted to each College for W.E.A. and extension classes.

Publications. Calendar (Oct.), 2s. 6d.; Minutes of Prodgs. of Senate, free; Examn. Papers, 6d. or is. a set; Reports of Examrs. (in England and N.Z.), free.

### THE YEAR 1931

Authority has been acquired by legislation for conferring honorary degrees, Litt.D., D.Sc., LL.D., and Mus.D. The first and only degree awarded is Hon. D.Sc. on Lord Rutherford of Nelson, O.M. No annual grant was paid by the Govt. for the year 1930, and payment for 1931 is doubtful.

DEATH. Emer. Prof. Robt. Julian Scott (Engin.), Canterbury Coll.

Students (1931). Full-time: total, 2069, including 110 graduates. Parttime: total, 2195, including 169 graduates.

Degrees (1930). B.A., 117; M.A., 87; B.Sc., 60; M.Sc., 21; D.Sc., 1; Ph.D., 2; LL.B., 42; LL.M., 10; B.Com., 17; M.Com., 3; M.B., Ch.B., 33; M.D., 3; B.D.S., 9; B.E., 18; B.Agr.Sc., 5; M.Agr.Sc., 2; B.For.Sc., 1; B.H.Sc., 4; M.H.Sc., 1.

(1931). B.A., 177; M.A., 85; B.Sc, 55; M.Sc., 31; Ph.D., 1; LL.B., 40; LL.M., 13; LL.D., 1; B.Com., 12; M.Com., 4; M.B., Ch.B., 30; M.D., 2; B.D.S., 14; B.E., 14; B.Agr.Sc., 1; M.Agr.Sc., 2; B.For.Sc., 6; B.Arch., 2; B.H.Sc., 9; M.H.Sc., 1.

### UNIVERSITY OF OTAGO, DUNEDIN

VISITOR-H.E. THE GOVERNOR-GENERAL.

VISITOR -II.D. THE GOVERNOR-GENERAL.		
Chancellor—Sir T. K. Sidey, B.A., LL.B., M.L.C.		
VICE-CHANCELLOR—W. J. MORRELL, M.A., Oxford.		
REGISTRAR—H. CHAPMAN, B.A.		
Librarian—Miss N. I. Gordon.		
Librarian Med. Sch.—W. J. Mullin, M.B., Ch.B., F.R.C.S.		
PROFESSORS, LECTURERS, ETC.		
Accountancy Reid, G. W., B.Com. (Dean, Fac. Com.) Lectr. 2 Tutors.	Education [Prof. Lawson, R., M.A., Litt.D. Melb Asst. English Lang. and Lit.	
Anatomy	Ramsay, H., M.A. St. And. Prof.	
Gowland, W. P., M.D., B.S. Lond., F.R.C.S. Eng. Prof. Stallworthy, J. A., M.B., Ch.B.	Cameron, G. M., M.A. Asst.  Ethnology Skinner, H. D., M.A., Dip.Anth.	
Asst. Lectr.	Camb., B.A. Lectr.	
Architecture Miller, E., A.R.I.B.A. Lectr. Scoular, S. G., B.E. (Descr. Geom.) Lectr.	Geology and Mineralogy Benson, W. N., B.A. Camb., D.Sc. Syd., F.G.S. Prof. Turner, F. J., M.Sc., F.G.S. Asst.	
Brology Benham, W. B., M.A. Ox., D.Sc. Lond., F.R.S. Fyfe, Marion L., B.Sc. Asst.	Hebrew Hunter, S. F., M.A., B.D. Glas., D.D. Melb. Lectr.	
Botany Holloway, J. E., D.Sc., Lectr.  Chemistry	History [Prof. Elder, J. R., M.A., D.Litt. Aberd. McClymont, W. G., M.A. Asst. Woods, A. J., M.A. Asst.	
Inglis, J. K. H., D.Sc. Edin., M.A., B.Sc., F.I.C. Prof. Carter, C. L., M.Sc., A.I.C. Lectr.	History, Constitutional Lang, J., M.A., LL.B. Lectr. Home Science	
Classics Adams, T. D., M.A. Prof. Turnbull, Mary I., M.A. Asst.	Strong, Ann G., B.Sc. Columbia Dean and Prof. Bowbyes, Avice M., B.S. Columbia Lectr.	
Dentistry, v. infra	3 Assts.	
Economics Fisher, A. G. B., B.A. Melb., Ph.D. Lond. Prof. Billing, G. C., B.A. Adel. Lectr.	Law Lecturers: Stephens, A. C., LL.B. (Contracts). Neill, A. G. (Crim. Law).	

Fogg, W. S., M.B., Ch.B. Hay, W. G., LL.M. (Jurispr.). Sr. Demr. Cook, H. L., LL.B. (Trusts, etc.) Psychology, Experimental Anderson, P. S., B.A., LL.B. (Pro-Ferguson, H. H., M.A. St. And. perty L.). ..... (Proc.). Lectr. Callan, J. B., B.A., LL.B. (Torts). Medicine Paterson, J. M., M.C., M.A., LL.B. (for subjects of the first 2 yrs.-(Accountancy L.). Anat., etc., v. supra) Fairmaid, R. L. (Conveyancing). Anæsthetics [Lectr. White, C. J. L. (Evidence). Whyte, Marion K. B., M.B., Ch.B. Haggitt, A. N., LL.B. (Rom. Law). Barrowclough, C. B., B.A., LL.B. Bacteriology and Pub. Health (Conflict of Laws). Hercus, C. E., D.S.O., O.B.E., Curzon-Siggers, W. A., LL.M. M.D., B.D.S., D.P.H. Prof. Camb., M.A. (Pub. Intern. L.). Britton, C. J. C., M.B., Ch.B. Asst. Mathematics, Pure and Applied Clin. Med. and Clin. Surg. Bell, R. J. T., M.A., D.Sc. Glas. The Hon. Staff of the Dunedin Prof. Hospl. Lectrs. Orton, A. A., B.A., M.Sc. W. Aust. Beverly Lectr. Clin. Medicine Metallurgy and Assaying Fitchett, F. W. B., M.D., C.M. Black, H. Lectr. Prof. Edin. Macdonald, W. M., C.B.E., B.Sc., Mining M.D., M.R.C.P. Lectr. Park, J., M.A.I.M.E., M.I.M.M., Moore, S. A., M.D. Edin., B.A., Dean and Prof. M.R.C.P. Lectr. Batham, G. S., B.Sc. (Appl. Elect.) Lectr. Asst. Lecturers: Burns, C. R., M.D., M.R.C.P. Modern Languages Iverach, J. A. D., B.A., M.B., Thompson, G. E., M.A., Litt.D., Ch.B., M.R.C.P. Prof. Porteous, W. J., M.D., F.R.C.S. Barron, Vida M., M.A. Asst. Edin. I Tutor. Diseases of Children Music [Lectr. Williams, E. H., M.B., Ch.B., Galway, V. E., Mus.D. Melb. M.R.C.S. Eng. Lectr. Philosophy, Ment. and Moral Ear, Nose, and Throat Dunlop, F. W., Ph.D. Jena, M.A. Hall, A. J., M.B., Ch.B., M.R.C.S. Prof. Eng., L.R.C.P. Lond. Lectr. Physics Gynæcology, v. Midw. and Gyn. Jack, R., M.A., D.Sc. Glas., Ph.D. MedicineGött. (Dean, Fac. Arts and Carmalt-Jones, D. W., M.A., D.M. Sc.) Prof. Ox., F.R.C.P. Lond. Focken, C. M., B.M.E.. Mary Glendining Prof. Melb., Ph.D. Ox. Colquhoun, D., M.D. Lond., Beverly-Mackenzie Lectr. F.R.C.P., M.R.C.S. Blackie, Agnes R., M.Sc. Asst. Emeritus Prof. PhysiologyMental Diseases [Lectr. Malcolm, J., M.D. Edin. Prof. Childs, H. P., M.B., Ch.B. Edin.

Midwifery and Gynæc. Dawson, J. B., M.D., B.S. Lond., F.R.C.S. Eng., L.R.C.P. Lond. Prof. Riley, F. R., F.R.C.S.

Eng., L.R.C.P. Lond. Prof. Ritchie, R. I., M.B., Ch.B., M.R.C.S. L.R.C.P. Eng., Lond. (Obstet.) Tutor.

Fitzgerald, G. P., M.B., Ch.B. (Clin. Gynæc.) Asst. Lectr.

North, C., B.A., B.Sc., M.B., Ch.B., M.R.C.S., L.R.C.P.

(Gynæc.) Tutor.

Ophthalmology [Prof. Ferguson, Sir Henry L., C.M.G., M.A., M.D. Dub., F.R.C.S.I.

Ophthalmology, Clinical Asst. Lectrs.:

Carswell, W. E., M.B., Ch.B., L.R.C.P., F.R.C.S.

Ross, K., M.A., M.B., C.M., D.P.H. Cottrell, A. J., M.A., M.Sc., M.B., Ch.B.

Pathology

D'Ath, E. F., M.D. Prof. Chapman, Eileen N., M.B., Ch.B. Liv. Asst. Watt, M. N., M.B., Ch.B.

Clin. Pathologist.

Radiology

de Monchaux, C. S., M.B., Ch.M. Syd., D.M.R.E. Camb. Lectr.

### Surgery

Bell, F. Gordon, M.B. Edin., L.R.C.P., F.R.C.S.

Ralph Barnett Prof. Barnett, Sir L. E., C.M.G., M.B., C.M. Edin., F.R.C.S.

Emeritus Prof.

Assts.:

White, J. R., M.B., Ch.M., F.R.C.S. Jenkins, J. A., M.B., Ch.M., F.R.C.S. (also Clin. Tutor).

Surgery, Clinical

Lectrs.:

Newlands, W., M.B., Ch.B. Edin., F.R.C.S. Edin., M.A., B.Sc.

Batchelor, F. S., L.R.C.P., F.R.C.S. Asst. Lectrs.:

Fergus, T., M.B., Ch.B., F.R.C.S. Greenslade, C. M., M.B., Ch.B., F.R.C.S.

Barnett, G. M. F., M.B., Ch.B., F.R.C.S.

Fulton, R. A. H., M.B., Ch.B., F.R.C.S. Clin. Tutor.

#### Dentistry

Dodds, R. B., D.D.S.

Dean and Prof. Burt, J. R., L.D.S., R.C.S. Edin. Assoc. Prof.

#### Adult Education

15 Lecturers to W.E.A. Classes. Director-Prof. Fisher.

### GENERAL INFORMATION

Founded by Ordinance of the Provincial Council in 1869 with power to grant degrees in Art, Medicine, and Law, the Univ. was opened in 1871. The Law School originated in 1873, the Medical in 1874, the School of Mines in 1878, the Dental School in 1907, the Accountancy Lectures and the Home Science Dept. in 1911. Between 1869 and 1877 the Univ. received grants of land exceeding 220,000 acres. It is entirely unconnected with any religious denomination except that the right of nomination to certain Chairs endowed by the Presbyterian Church rests with the Board of Church Property, subject to the approval of the Synod. It receives annual Government grants of approximately £20,000.

By an agreement effected in 1874 the Univ. agreed to hold in abeyance its power of granting degrees, and to become affiliated to the Univ. of N.Z.

Class Fres. In separate subjects—in Arts generally, £5:5s. for complete

course; Science, £8:8s.; Law from £1:15s. to £5:5s.; Commerce, £1:10s. to £5; Medicine, all subjects aggregate (6 years), about £218, exclusive of Univ. fees, £45:3s.; Dentistry (4 years), £149, exclusive of Univ. fees, £24; Mining (4 years), £134; Home Science (4 years), £125:4s.

LIBRARIES. Main Library, 16,000 vols.; Med. Library, 10,000 vols.; also the Hocken collection of pamphlets and MSS. bearing on the History of N.Z. Museums: Biol., Ethnog., Geol., Anat., Path. LABORATORIES: Phys., Chem., Physiol., Bact., Path.

FACULTIES. Arts and Science, Medicine, Dentistry, Mining, Law, Commerce, and Home Science.

COURSES: for degrees in all the Faculties; D.P.H.; Certif. in Dent. Surg.; Associateship of Otago School of Mines (A.O.S.M.), 4 yrs.; Diploma of Mining, Metallurgy, Geology, or Land and Mine Surveyor, 2 yrs.; Associateship in Home Science, 4 or 3 yrs.

RESEARCH SCHOLARSHIPS, ETC. Edmond Industrial (Chemical) Research, £210, tenable 2 yrs.; Smeaton Research in Experimental Science, £60 for first year and £210 for second. The first is open to any person domiciled in N.Z., the second to graduates of Otago. Ross (Knox College), £150, 2 yrs.; Sir R. Stout (Economics), £50; and Anna P. Stout (Economics and History and Home Science—women); all open to graduates of Otago. OTHER RESEARCH FUNDS: Roberts, Deans, and Barnett endowments, £2000 each for research in med. and surg.

Hostels. Presbyterian for men and women; Anglican for men; Home Science Students'. Cost of board and lodging, 30s. to £2 a week.

Univ. Extension. Since 1916 classes in connexion with the W.E.A. in Dunedin and Invercargill have met with very great success.

### THE YEARS 1930, 1931

BENEFACTION. Late Mrs. Urie, £2800 for Cancer Research.

VISITS. Dr. Fisher, Prof. of Econ., visited England, Russia, and other parts of Europe. Dr. Thompson, Prof. of Mod. Langs., visited America, France, and England.

STUDENTS. Full-time: total, 704, including 63 graduates. Part-time: total, 419.

Degrees obtained. B.A., 39; B.Sc., 13; M.A., 22; M.Sc., 4; M.Sc. in H.Sc., 1; LL.B., 6; M.B., Ch.B., 30; B.D.S., 16; B.H.Sc., 11; B.Com., 3; Mus.Bac., 1; M.Com., 1; LL.M., 1; M.D., 2.

### CANTERBURY COLLEGE, CHRISTCHURCH

VISITOR-THE MINISTER OF EDUCATION.

CHAIRMAN OF BOARD OF GOVERNORS-Colonel the Hon. G. J. SMITH, C.B.E., V.D., M.L.C. RECTOR—Prof. JAMES HIGHT, M.A., Litt.D. REGISTRAR—C. C. KEMP. PROFESSORS, LECTURERS, ETC. Accountancy, etc. Purchase, J. E., M.A. Lectr. Cordery, L. L., F.I.A.N.Z. Lectr. Beeby, C. E., Ph.D. Manc., M.A. Smith, W. A. Asst. Lectr. (Experl. and Ednl. Psychol.) Cuthbert, R. A., B.A., LL.B. (A. Lectr. Pt.-time Asst. Lectr. I Student Asst. r Student Asst. Engineering, v. infra Biology Percival, E., B.Sc. Leeds (Dean English Lang. and Lit. Wall, A., M.A. Lond., B.A. Camb. Fac. Sc.) Prof. (Dean Fac. Arts) Prof. F.L.S. Foweraker, C. E., M.A., Simpson, Helen, Ph.D. Lond., (Bot.) Lectr. M.A. Lectr. Herriott, Eliz. M., M.A. Lectr. I Student Asst. Morrison, L., B.Sc. Aberd. (Entomol.) Lectr. Forestry Botany, v. Biology Foweraker, C. E., M.A., F.L.S. Lectr. Chemistry Hutchinson, F. E., B.Sc.For. Mon-Denham, H. G., D.Sc. Liv., Ph.D. Heid., M.A., M.Sc. Prof. tana. (Forest Utilization) Lectr. Packer, J., M.Sc. Melb. Lectr. Parton, H. N., M.Sc. Asst. Lectr. I Student Asst. 2 Student Assts. French and German Classics Blunt, T. G. R., M.A. Ox. Pocock, L. G., M.A. Lond. Prof. White, J. F. D., B.A., M.Sc. Broadhead, H. D., B.A. Camb., Lectr. (French) Litt.D. Lectr. Geology [Lectr. Sheppard, Eliz. A., M.A. Allan, R. S., M.Sc., Ph.D. Camb. Pt.-time Asst. Lectr. History and Political Science Economics Hight, J., M.A., Litt.D. Prof. Tocker, A. H., M.A. (Dean Fac. Candy, Alice M. F., M.A. Lectr. Prof. Com.) Brassington, A. C., LL.B. Lawn, G., M.A. Lectr. Pt.-time Asst. Lectr. I Student Asst. I Student Asst. Education Shelley, J., M.A. Camb. (Dean

Prof.

Fac. Soc. Sc.)

Iournalism

Henderson, A. G., B.A.

Lectr.

Law v. also Accountancy Taylor, A. S., B.A., LL.M. Lectr. (Dean) Asst. Lecturers, Pt.-time: Gresson, K. M., LL.B. (Property, etc.). Hanna, H. H., LL.B. Gee, L. W., LL.M. Brassington, A. C., LL.B. Brown, A. W. Archer, K. G., LL.B.

#### Mathematics

Saddler, W., M.A., D.Sc. St. And., B.A. Camb. Prof. Darwin, L. J., M.A. Adel. Lectr. Bull, M. A. Pt.-time Asst. Lectr.

#### Music

Bradshaw, J. C., Mus.D. Manc., F.R.C.O., L.R.A.M., A.R.C.M. Lectr. Black, Jane L., Mus.B. Asst. Lectr.

Philosophy, Mental and Moral Salmond, C. F., M.A. Prof. Morrison, Eliz. A., M.A.

Asst. Lectr. Physics Prof. Farr, C. C., D.Sc. Adel., F.R.S. Macleod, D. B., M.A., D.Sc.

Lectr. r Student Asst.

## GENERAL INFORMATION

Created by Provincial Ordinance, 1873, and affiliated to the Univ. of N.Z., 1874. Value of lands, buildings, equipment, etc., over £1,015,000, including £507,376 for the High Schools, School of Art, Museum, and Public Library controlled by the Board of Govrs. Annual Govt. subsidies and grants (1930), £58,005, including £5011 for Engineering (the National School of Engin. in N.Z.) and £7347 for College. The Rector is the academic head of the College and the permanent Chairman of the Protessorial Board. LABORATORIES: Biol., Chem., Engin., Phys., Educational Psychology, Forestry.

DEGREE COURSES in Arts, Science, Mus., Com., Forestry Science, and Engin., and Certif. or Diploma courses in Journalism, Education, Forestry, Banking, Fine Arts, and Social Science. Evening courses in Mech. and Elec.

Engin, and Com.

CLASS FEES. Per session in each subject in Arts or Science, 5 gs.; Laboratory Research, 8 gs.; Law and Commerce subjects, 2 to 4 gs.

RESIDENCE. Hostels for men (79) and women (93) students.

Scholarships include one of £50 for one yr., open to students in their 3rd

### Engineering

Civil

Cull, J. E. L., B.Sc. Eng. Prof.

Lecturers:

Calvert, G. G., M.I.Struct.E., M.N.Z.S.C.E.

Robinson, W. F. (Surveying, etc.). 3 Student Assts.

#### Electrical

Powell, P. H., M.Sc. Manc., M.Eng. Liv., M.I.E.E. Prof. Lectr. Pollard, T. R. Hayman, I., B.E. Demr.

I Student Asst.

#### Mechanical

Steele, S., B.Sc.Mech.Eng. (Dean Fac. Engin.) Prof. Morrison, A. F., M.N.Z.S.C.E.

Lectr. Rastrick, R. J. W., B.E.Mech.Eng. Lectr.

Bamford, P.G., B.E. Testing Engr. Hutcheson, D. W. D. Demr. 3 Student Assts.

#### Adult Education

Director: Prof. J. Shelley, M.A. Camb. Staff-Tutor (W.E.A.): Johnson,

J., M.A.

yr.; one of £50 annually, tenable for 3 yrs, to entrants; one of £50 for 2 yrs. for students not yet eligible for final section of B.A.; 4 of £50 for 3 yrs. for residents in the four Univ. districts of N.Z.; one of £85 for 4 yrs. to a pupil of Nelson Boys' Coll. for the B.Sc. and M.Sc. degrees; 2 of £25 or £45 for 3 yrs.; one of £50 for research in Science, open to graduates, renewable up to 3 yrs.; one of £150 p.a. for 2 yrs. plus £38 for travelling, tenable at Royal Holloway Coll., England; one of £150 in Engineering, open to B.E., tenable outside N.Z.; one (Hartley) for women graduates, offered every third year, £300 p.a. for 3 yrs. tenable ordinarily at Oxford, Cambridge, or London. There is a Students' Loan Fund of £700.

PUBLICATIONS. Calendar and Commemoration Day Address in March. Annual Statement of the Chairman in June. Canta, 8 issues a year, subscription 2s. 6d. Review, annual in Oct. Annual Report, Trans. of Coll. Engineering Soc., 2s. 6d.

### THE YEAR 1930

Benefactions. Students' Assn., Graduates, Friends, and Staff, £189:4s. towards Students' Union Building Furnishing. Canterbury Chamber of Commerce, annual donation, £100 for upkeep of Econ. Dept. Gifts of Books or equipment from Carnegie Corporation, New York, Gifford Trust, Estate late T. W. Cane, Mrs. J. H. Alabaster, Rev. H. Northcote, J. H. E. Schroder, The Misses Neave, Mrs. M. H. Sharp, and Mrs. E. Rosa Sawtell.

New Departments and Posts. Dominion School of Forestry, Lectureship in Entomology (with Lincoln Coll.).

EXTRA-MURAL WORK. Extension work—Carnegie Corporation.

VISITS OF TEACHERS FROM OTHER UNIVERSITIES. Dr. C. E. Martin, Hd. of Dept. of Polit. Sci., Univ. of Washington; F. A. Taylor of Ch. Ch., Oxford, Rhodes Travelling Fellow; Prof. Duniway of Dept. of Polit. Sci., Univ. of Iowa; Dr. E. P. Hohman, Prof. of Econ., North-western Univ., Chicago, and Travelling Fellow of the Social Science Research Council, and Mrs. Hohman of the Staff of the Univ. of Chicago.

RETIREMENTS AND DEATHS. Prof. Speight (Geology), resigned. Rev. Walter Harper, for 27 yrs. a Member of the Board of Governors; and Emer. Prof. R. J. Scott, founder and Director of School of Engineering, died.

STUDENTS. 1930: full-time, 384; part-time, 737; total, 1121, including 89 graduates.

DEGREES OBTAINED. M.A., 31; M.Sc., 11; M.Com., 1; M.Agr.Sc., 1; B.A., 44; B.Sc., 9; LL.B., 1; B.For.Sc., 3; B.E., 10; Dip. in Edn., 5; Dip. in Soc. Sci., ism, 2; Dip. in Fine Arts, 8.

### AUCKLAND UNIVERSITY COLLEGE

VISITOR-THE MINISTER OF EDUCATION.

PRESIDENT OF COUNCIL—Hon. Sir G. FOWLDS, C.B.E.

VICE-PRESIDENT OF COUNCIL—KENNETH MACKENZIE, M.D., M.Ch., F.R.C.S.

REGISTRAR-M. R. O'SHEA, B.Com.

LIBRARIAN-ALICE E. MINCHIN, B.A.

### C.

PROFESSORS, LECTURERS,	ET
Accounting, etc. Seaman, A. M., F.I.A.N.Z. Lectr Asst. Lectr.	Fir Ra
Architecture Knight, C. R., B.Arch., M.A. Liv., A.R.I.B.A. Prof.	La
Crookes, S. I. Lectr. Chisholm, A. M., A.R.I.B.A. Lectr.	Da Be
Turkington, Jas. (Art) Lectr.  Biology	Mo
Prof. Lancaster, T. L., M.Sc. Asst. Lectr. McGregor, W. R. LectrDemr.	ı V Eg
Chemistry Worley, F. P., D.Sc. Lond., M.A., M.Sc., D.I.C., F.C.S. Prof. Bowell, A. H., F.C.S. LectrDemr. Short, W. F., D.Sc. Manc., A.I.C., F.C.S. LectrDemr.	Arc Ba: H
Classics [Prof. Paterson, A. C., M.A. Edin. & Ox. Blaiklock, E. M., M.A. Asst. Lectr.	Gro Air

Dental Mechanics Craddock, F. M. Lectr. Gleeson, H. L. Demr.

Economics [Prof. Belshaw, H., Ph.D. Camb., M.A. Rodwell, H. R., M.A. Asst. Lectr. Stephens, F. R., B.A., B.Com. Tutor & Research Asst.

Education [Prof. tt, A. B., Ph.D. Leip., M.A. ae, D. M., M.A. Lectr.

Engineering amb, S. E., B.Sc. Lond., A.R.C.S. Eng. (Applied Mechanics, etc.) Director, Prof. awson, C. (Elec. E., etc.) Lectr. ell, G. B., B.E., B.Sc.

(Civil E.) Lectr. cLaren, E. J. R. Demr. & Asst. Lectr.

Workshop Instructor.

English gerton, C. W., M.A. Dub. Prof. dern, P. S., B.A. Ox., M.A.

Asst. Lectr Geology Prof. rtrum, J. A., M.Sc., A.R.S.M.

Hebrew terson, A. C., M.A. Ox. Prof. History ossmann, J. P., M.A. Prof. rey, W. T. G., M.A.

*Iournalism* Mulgan, A. E. Lectr.

Lectr.

Law Algie, R. M., LL.M. Prof. Munro, L. K., LL.M. Asst. Lectr. Hogben, J. M., LL.B. Asst. Lectr. Goodall, S. I., LL.M. Asst. Lectr. Goulding, A. M., LL.B. Asst. Lectr. Tuck, W. R., LL.M. Asst. Lectr.

Mathematics

Segar, H. W., M.A. Camb. Prof. Bullen, K. E., M.A. Asst. Lectr.

Modern Languages

Walker, M., M.A., B.Com. Prof. Miller, Dora L., M.A., Cert. Assn.

Phon. Internat. (Paris)
Asst. Lectr.

Music

Thomas, W. E., Mus.D. Ox. Prof.

Philosophy

Anderson, W., M.A. Glas. Prof. Anschutz, R. P., M.A. Lectr.

Physics

Burbidge, P. W., B.A. Camb., M.Sc. Prof.

Brown, D., D.Sc. Lectr. & Demr. Sagar, F. H., M.Sc. Lectr. & Demr.

#### Adult Education

Of II Tutors assisting the Director appointed by the W.E.A. (Richmond, N. M., B.A.), 2 are members of the College staff. Asst. Tutor Organizer: Beaglehole, J.C., Ph.D. Lond., M.A.

#### GENERAL INFORMATION

Established by Act of the N.Z. Legislature in 1882, the College was affiliated to the Univ. of N.Z. in 1883. It received in 1885 an endowment of 30,000 acres of land, of which one-third was sold in 1915 for £10,246. It receives an annual grant of £11,500.

Of the 14 members of the College Council 3 are appointed by the Governor, 2 by the Prof. Board, 1 by local bodies, 4 are elected by the graduates, and 3 by the Auckland members of the General Assembly. Legislation was passed in 1923 permitting of the appointment of a Principal to the College.

Courses are provided for the degrees of the Univ. in Arts, Science (including B.Sc. in Archit.), Law, Music, Commerce, and Associate of the College in Engineering (3 yrs.).

CLASS FEES. Arts subjects, usually £3:3s. to £5:5s. Science, £5:5s. to £8:8s. Law, £2:2s. to £3:3s. per subject.

Publication. Calendar (Feb.).

### THE YEARS 1930, 1931

NEW DEVELOPMENTS. F. R. Stephens, B.A., B.Com., was appointed Tutor and Research Asst. in Land Utilization. A course of lectures on Public Administration instituted.

Students. Full-time: total, 293, including 15 graduates. Part-time: total, 810, including 56 graduates. 105 were unmatriculated.

DEGREES OBTAINED. D.Phil., I; B.A., 49; M.A., 17; B.Sc., 18; B.Agr.Sc., 2; B.For.Sc., 3; M.Sc., 6; LL.B., 16; LL.M., 5; B.Com., 4; Dip. Education, 3; Dip. Social Sc., I; Dip. Journalism, 3.

### VICTORIA UNIVERSITY COLLEGE, WELLINGTON

VISITOR—THE MINISTER OF EDUCATION.
CHAIRMAN OF COUNCIL—P. LEVI, M.A.
REGISTRAR—G. G. S. ROBISON, M.A.
LIBRARIAN—H. G. MILLER, M.A.

Lectr.

### PROFESSORS, LECTURERS, ETC.

Kirk, H. B., M.A. Prof.
Pigott, Ellen, M.A. (Bot.)
Lectr. & Demr.
Maskell, F. G., B.A., M.Sc. (Zool.)
Lectr. & Demr.
Chemistry
Robertson, P. W., M.A Ox.,
Ph.D. Leip., M.Sc. Prof.

I Demr.

Classics

Monro, A. D., M.Sc.

Biology

Brown, J. R., M.A. Ox. & St. And., LL.D. St. And. Prof. Elliott, J. R., B.A. Syd. and Camb. Lectr.

Economics

Murphy, B. E., M.A., B.Com., LL.B. (Dean) Prof. Heine, Hilda G., Ph.D. Berl., M.A. Lectr.

Education
Gould, W. H., M.A. Prof.
Campbell, A. E., M.A. Asst. Lectr.

English Language & Lit. [Prof. Mackenzie, H., M.A. St. And. Cochran, A. B., B.A. Ox., M.A. Lectr.

Geology
Cotton, C. A., D.Sc., F.G.S. Prof.
King, L. C., M.Sc. Asst.

History
Wilson, F. P., M.A. Prof.
Ellis, Muriel, M.A. Asst. Lectr.

Law, English and N.Z. Cornish, H. H., M.A., LL.M. Prof.

Law, Roman, etc.
Adamson, J., M.A., LL.B. Edin.
Dean and Prof.
Hain, C. H., LL.B. (Jurispr.)

Asst. Lectr. Scott, C. E., LL.M. (Jurispr. and

Internat. L.) Asst. Lectr.

Mathematics

Sommerville, D. M. Y., M.A., D.Sc. St. And. Prof. Miles, F. F., M.A. Ox. and N.Z.

Lectr.

Modern Languages
Boyd-Wilson, E. J., B.A. Camb.,
M.A., B.Sc. Prof.
Henning, I. A., D. de l'U. Paris,
B.A. Syd. Lectr.

Philosophy, Mental and Moral
Hunter, T. A., M.A., M.Sc. Prof.
Sutherland, I. L. G., Ph.D. Glas.,
M.A. Lectr.
Physics
Florance, D. C. H., M.A., M.Sc.
Peddie, G. A., M.Sc. Lectr.

#### Adult Education

Of the Tutors who conduct oneyear classes under joint committee of W.E.A. and College, 3 are members of College staff. Director, I. L. G. Sutherland, M.A., Ph.D.

#### GENERAL INFORMATION

Established by Act of the N.Z. Legislature, 1897, and affiliated to the Univof N.Z., 1899. Endowed by Govt. with 4000 acres. College buildings, towards which Govt. gave £31,000, were opened in 1906; additional wings for Library, etc., and for Physics erected 1921–22 at a cost of £50,000. Annual grants about £14,000.

Full Degree Courses are provided in Arts, Science, Law, and Commerce and the earlier stages in other Faculties.

Class Fees range between 3 and 5 guineas per annum for each subject.

RESEARCH SCHOLARSHIPS. J. Joseph, two scholarships of £60 for 1 yr. for original work; Mrs. S. A. Rhodes' Fellowship (£400) or Scholarship (£125-£250) for women students of Home Science, tenable for 2 years.

Hostel for 41 women students conducted (on definitely Christian lines) by W.S. Hostel Society.

Publications. Calendar (Feb.); Students' Magazine published towards end of each term.

### THE YEAR 1930

BENEFACTIONS. Emily Lilias Johnston Scholarship, £2000 bequeathed by the late Miss Johnstone; James Macintosh Scholarships, £8000 bequeathed by the late James Macintosh.

EXTRA-MURAL WORK. There were 238 exempted students in 1930.

RETIREMENT. W. F. C. Balham (Mod. Langs.).

STUDENTS, 1930. Full-time, 158, including 10 graduates; part-time, 678, including 54 graduates.

1931. Full-time, 221, including 24 graduates; part-time, 592, including 34 graduates.

Degrees obtained (1930 examinations). M.A., 15; B.A., 50; M.Sc., 10; B.Sc., 15; LL.M., 9; LL.B., 17; M.Com., 2; B.Com., 5; Diplomas of Education, 6.

### CANTERBURY AGRICULTURAL COLLEGE, LINCOLN

### DIRECTOR-Prof. R. E. ALEXANDER, A.R.C.Sc.I.

Agriculture Lectr. The Director Agr. Chemistry Scott, M. J., B.A. Camb., B.Sc., A.I.C. Lectr. Sidey, D. J., B.Ag., H.D.D. Asst. Franklin, M. C., M.Sc., A.I.C. Asst. Agr. Economics Weston, I. W., M.Sc. Lectr. Biology Hilgendorf, Prof. F. W., M.A., D.Sc., F.N.Z. Inst. Lectr. Calder, J. W., M.Sc., B.Ag. Asst. Engin. and Surveying James, R. L., B.Sc., A.A.S.E. Lectr. (Civ.)

Field Husbandry
Geddes, H. J., M.Sc. Lectr.

Veterinary Science
Leslie, A., M.R.C.V.S. Lectr.

#### Research Staff

Animal Nutrition—M. J. Scott; D. J. Sidey; A. H. Flay, M.Ag.Sc., B.Sc.; N. O. Alexander.

Farm Costing-I. W. Weston.

Plant Breeding—Prof. F. W. Hilgendorf; J. W. Calder; O. H. Frankel, Ph.D.

#### GENERAL INFORMATION

Canterbury Agricultural College, Lincoln, was established by the Canterbury College and Canterbury Agricultural College Act, 1896, which placed the School of Agriculture founded by Canterbury College under an entirely separate management. The new Board of Governors came into office on Jan. 1, 1897. A series of amending Acts were passed between 1922 and 1927, and under that passed in the last-named year Canterbury College is deemed a part of Canterbury College as regards requirements for degrees.

LIBRARY. A special building was erected in 1915 and a full-time College Librarian appointed.

LABORATORIES. Biology, Chemistry, Physics. The Wheat Research Institute (v. App. XXIV. p. 827).

### MASSEY AGRICULTURAL COLLEGE—Continued from p. 529.

Degree Courses, etc. Courses are given for the B.Agr.Sc. and M.Agr.Sc. of the Univ. of N.Z. College Diploma courses in Dairy Farming and Dairy Manufactures, the latter carrying the title of Associate of the Coll. There are also courses in Herd Testing and Sheep Farming and Wool Classing.

RESEARCH. The Dairy Research Institute (N.Z.) is located at the Coll.

(v. App. XXIV. p. 827). .

FEES. Interm. B.Agr.Sc., £21; B.Agr.Sc., £33:10s.; M.Agr.Sc. and Hons. in Agric., £22:10s.; Diploma courses, £5:10s.

Scholarships. Rowson Scholp. £25 for r yr. in Dairy Manufactures; various Govt. and Univ. Scholps. are also open to students.

### MASSEY AGRICULTURAL COLLEGE, PALMERSTON NORTH

PRINCIPAL-G. S. PEREN, C.G., B.S.A. Tor. Agr. Zoology Veterinary Science McLinden, J. M., M.R.C.V.S., Dry, F. W., D.Sc. Leeds Lectr. N.D.A. Bacteriol. and Mycology 7 Asst. Lectrs. Waters, R. Lectr. Research Staff Botany Yeates, J. S., M.Sc., Ph.D. Lectr. Director-Prof. W. Riddet. Dairy Bacteriol. Whitehead, H. R., M.Sc. Leeds, M.Sc., F.I.C. Lectr. A.I.C. Dairying and Animal Hus-Cox, G. A., M.Sc. bandry Riddet, W., B.Sc. (Agr.) Glas.,

N.D.A., N.D.D. Logan Campbell Prof. of Agric.

Economics Lectr. Williams, D. O., M.A.

Field Husbandry and Sheep Management

The Principal

Walter Clarke Buchanan Prof. of Agric. Andrew, I. (Sheep Management)

Lectr. Soil Chemistry

Scrivener, F. L. C., B.Sc. (Agr.) Lond.

Dairy Research Institute (N.Z.) McDowall, F. H., D.Sc. Lond., Chemist. Whelan, L. A., B.Sc. Asst. Chemist. Whitehead, H. R. Bacteriologist.

Asst. Bacteriologist.

Flax (Phormium tenax)

Yeates, J. S., M.Sc., Ph.D. Botanist.

Meadows, L. F. Asst. Botanist.

Micro-Biology

Waters, R. Micro-biologist.

Plant Breeding

Jacques, W. A., B.Sc. Wales, N.D.A. Agristologist.

Wool

Director. The Principal Dry, F. W. Biologist. Scrivener, F. L. C. Chemist. Sutton, W.G., M.Sc. Asst. Chemist.

### GENERAL INFORMATION

The College was estabd. under the New Zealand Agricultural College Act in Sept. 1926 as the result of an agreement between Victoria Univ. Coll., Wellington, and Auckland Univ. Coll. to amalgamate their respective Schools of Agric, and to establish the new Coll, in the Palmerston North-Merton area. On July 29, 1927, an amending statute, the Massey Agricultural College Act, was passed, and the Coll. finally estabd. under its present title and constitution. It is therefore "a College in connexion with the Univ. of New Zealand," and it is "deemed part of the Victoria Univ. Coll. and of the Auckland Univ. Coll." Pending the erection of permanent buildings, classes are held in a large house on the property and in a temporary annexe.

LABORATORIES, etc. The Coll. includes a modern dairy factory, erected in 1928, with separate rooms for all dairy processes, etc., and equipped with small units of the latest designs of dairy factory machinery. The farm is c. 865 acres in extent, with a wide range of soil types. There is also a nursery establishment for plant breeding and selection, and another devoted to research on

Phormium tenax (N.Z. flax).—Continued on p. 528.

# UNIVERSITIES OF THE UNION OF SOUTH AFRICA

Cape Town Pretoria SOUTH AFRICA, PRETORIA STELLENBOSCH

THE WITWATERSRAND, JOHANNESBURG

HISTORICAL SUMMARY (for which the Bureau is indebted to Professor Ritchie of Cape Town). The history of higher education in S. Africa covers but a comparatively short period of time. It may be said to have had its beginnings when, in 1829, the S. African College (now incorporated in the Univ. of Cape Town) was founded, as a proprietary institution, by a number of progressive citizens of Cape Town, assisted by subscribers from various parts of the country. This institution was, at its inception and for a long time afterwards, not much more than a higher-class school, but it had within it the possibilities of growth and started with very high aims. It had a very chequered history for some time, and was on more than one occasion in danger of extinction, but it gradually acquired a stronger position on ceasing to be a proprietary institution and receiving support from the public funds. For 20 years it remained the only educational establishment in S. Africa which aspired to anything beyond the range of elementary education, but in 1849 a rival College (the Diocesan) was started under the ægis of the Episcopalian Church at Rondebosch, a suburb of Cape Town. A few years later, in 1855, a somewhat similar College, St. Andrew's. was founded in Grahamstown, in the eastern part of the Cape Colony. Under the Governorship of Sir George Grey there was founded, in 1855, the Grey College at Bloemfontein in the Orange Free State, the first attempt at higher education beyond the borders of the then Cape Colony. None of these Colleges was well equipped, and most of the work done by them was school work rather than Univ. work, but they gradually acquired a growing influence and formed centres at which development was only a question of time. A very strong impetus in the direction of higher education was given in 1858 by the establishment of a Board of Examiners in Literature and Science. This Board had in view in the first instance the testing by means of examination of the competency of candidates for the Civil Service and public offices, but it soon extended its scope and started examinations on more distinctively Univ. lines, corresponding roughly to Matricn., B.A., and M.A. The competition between the existing Colleges caused by these examns. had undoubtedly a strong influence on the growth of these Colleges and the greater attention paid to subjects beyond the mere school range. This Board continued to exist until 1873, when a successful attempt was made to institute a Univ. for S. Africa. The Univ. of the Cape of Good

Hope, which was then founded, continued to exist until the beginning of 1918, when it was transformed into the Univ. of S. Africa, with its administrative seat at Pretoria. This Univ. was modelled on the lines of the London Univ., as then existing, as a purely examining body. It was governed by a Council, half of whose members were nominated by the Government, half elected by the members of Convocation. It had no constitutional connexion with the Colleges which prepared students for its examns., but the members of the Council who were elected by Convocation tended gradually to be almost entirely members of the teaching staffs of the various Colleges. In this indirect fashion the Colleges had a considerable influence on the development of the Univ. and the extension of the range and scope of its examns. Almost at the same time as the founding of the Univ. of the Cape of Good Hope there was passed by the Cape Parliament a Higher Education Act, which gave definite salary grants to the professors at recognized Colleges. This Act, together with the new impulse given to higher education by the new Univ., had a very marked influence on the development of the Colleges, which now began to increase in staff and numbers of students. The new College of Stellenbosch (afterwards the Victoria College and now the Univ. of Stellenbosch) was founded in 1874, and grew very rapidly, until it was a formidable rival of the older College at Cape Town. Other Colleges were founded also at Somerset East (Gill College) and Port Elizabeth (Grey Institute), but these had only a very short term of life. At a considerably later period, as S. Africa grew in population and wealth, other Colleges sprang into existence. A College for women (the Huguenot College) was founded at Wellington in 1898. In 1904 St. Andrew's College at Grahamstown separated its College department from its school, and the former became incorporated as the Rhodes College. In the same year a School of Mines which had been founded in 1896 at Kimberley was transferred to Johannesburg, and afterwards developed into a College for higher education generally, which is now the University of the Witwatersrand. In 1908 a Univ. College was founded at Pretoria, and in 1909 a similar College was instituted at Pietermaritzburg, Natal.

In 1904 there began a movement for the institution of a teaching, in place of the examining, Univ., and the controversy regarding the rival claims of a federal and a single-college Univ. continued for a number of years. An Inter-Colonial Conference on Univ. Education in 1908 reported in favour of a federal scheme, but nothing came of its decision. A new factor in favour of a teaching Univ. was introduced by the munificent gifts for this purpose of Mr. Alfred Beit, his brother, Mr. (now Sir) Otto Beit, and Sir Julius Wernher. In consequence of these gifts, various attempts were made by the Government to solve the knotty question of reconciling claims of the existing Colleges with the institution of one or more teaching Univs. A parliamentary committee deliberated on the subject in 1913, and a Commission was appointed in the same year and, after taking evidence, issued its report in 1914. This Commission proposed two Univs., one consisting of a federation of the S. African College and the Victoria College, the other of a federation of the remaining Colleges (Rhodes College being allowed

the choice of joining whichever federation it pleased), but the proposal led to no practical result, chiefly owing to the objection on the part of the two oldest and strongest Colleges, at Cape Town and Stellenbosch, to the loss of their independence. The problem was at length solved in 1916 by giving charters to both the S. African College and the Victoria College, and by the reincorporation of the old Univ. of the Cape of Good Hope as a federal Univ. embracing all the other Colleges under the name of the Univ. of S. Africa.

The three Acts passed by the Union of S. Africa in 1916 were to the following effect:

I. The Univ. of the Cape of Good Hope became the Univ. of South Africa, with its administrative seat at Pretoria.

II. The South African College became the Univ. of Cape Town, with which is incorporated the S. African College. Its seat is upon the Groote Schuur estate on the eastern slopes of Table Mountain.

III. The Victoria College, Stellenbosch, became the Univ. of Stellenbosch, with its seat in the division of Stellenbosch in the Province of the

Cape of Good Hope.

The Faculties of the Univ. of Stellenbosch are specified as—Arts, Science, Education, Agric., Law, Theology, Commerce; of the Univ. of Cape Town as—Arts, Science, Medicine, Law, Engineering, Education; of the Univ. of South Africa the Faculties are not defined, but permission is given to each of the constituent Colleges to establish such faculties or depts. as it may deem fit; provided that it shall not, without the consent of the Govr.-General, apply towards the maintenance of a faculty or dept. not established at the commencement of this Act any money granted to the College from public funds. The three University Acts referred to above also made provision for the establishment of a Joint Matriculation Board and a Joint Committee for Professional Examinations, the functions of which are indicated below.

In 1921 Parliament passed a further Act, which has the effect of incorporating, with effect from March 1, 1922, as "The University of the Witwatersrand, Johannesburg," the University College, Johannesburg (formerly the S. African School of Mines and Technology, and one of the constituent Colleges of the University of S. Africa). Its Faculties are defined as Arts, Science, Medicine, Law, Engineering, Commerce, and Dentistry.

In 1930 Parliament passed an Act incorporating the Transvaal University College, Pretoria, as "The University of Pretoria" as from 10th October 1930. Its faculties are specified as Arts, Science, Agriculture, Law, Theology, Commerce and Public Administration, Veterinary Science, Education, Music.

Each of the five Univs. is governed by Council, Senate, and Convocation. The Senate of the Univ. of South Africa consists of the Professors and Lecturers of the constituent Colleges who are heads of such departments as are recognized by the University Council; the Senates of the Univs. of Stellenbosch, the Witwatersrand, Pretoria, and Cape Town consist in each case of the Principal or Rector, the Vice-Chancellor, two additional members of the Council appointed for a prescribed period, and the Professors.

TERMS. The academic year is usually divided into 4 terms, beginning in Feb. or March and ending Nov. or Dec. At Stellenbosch and the Witwatersrand there are two Semesters or terms, beginning end of Feb. and end of July.

CONFERENCE. The Vice-Chancellors of the Univs. acting as a Joint Committee (known as The Vice-Chancellors' Committee) have, in the exercise of powers conferred by the above-mentioned Acts, made joint statutes and regulations relating to the Joint Matricn. Board, the Joint Committee for Professional Examns., the administration of the Joint Scholarship Funds of the five Univs., the admission of registered students of any one of the Univs. to any of the others, and a minimum period of attendance and minimum fees for the Degree of Bachelor. They have power to formulate regulations dealing with any other matters of common interest. The address of the Secretary (who is also Registrar, Univ. of Cape Town) is P.O. Box 594, Cape Town.

Representatives of the Univs. and Univ. Colleges in South Africa met for the first time in conference in Cape Town in 1923 to discuss matters of common interest and to promote co-operation and mutual consultation. Similar meetings have since been held from time to time.

The Joint Matriculation Board consists of representatives of the five Univs., the Provincial and Union Departments of Education, and the Secondary Schools (public and private) of the four Provinces. Its function is to control and conduct the Matricn. Examn. of the five Univs., and to deal with all applications for exemption therefrom. Revised Regulations introduced Dec. 1931 require candidates to take: (I) English, Dutch; (2) Maths.; (3) Latin, Greek, French, German; (4) Physics and Chem., Physics, Chem., Biol., Bot., Zool., Geol., Hygiene, or Domestic Sci. and Hygiene, Agric. Sci. A.; (5) Hist., Geog., English, Dutch, Hebrew, addl. subject from (3) or (4); (6) Agric. Sci. B., Practical Maths., Mechanics, Bookkeeping and Comml. Arith., Shorthand and Typewriting, Art, Geom. Drawing, Domestic Sc., Music, addl. lang., addl. subject from (5). Under the new regns., if 6 subjects are taken, I must be selected from each group; if only 5 subjects are taken, 3 must be on the higher grade, I of which must be the subject from group (1), I a subject from group (2) or (3), and I from any other except (6). The 5 subjects must be selected from (1) to (5) (inclusive) in such a way that not more than one of these groups is School-leaving certificates are also issued by the Board under both sets of regns., the syllabuses and examn. papers being the same as for the matricn. examn. with a wider choice of subjects.

Examinations exempting (i.) wholly, or (ii.) subject for subject, from the matriculation examination of the South African Univs.: (i.) Final degree examns. of Univs. recognized by the Joint Board, St. Andrews L.L.A., Teachers' First Class Certificate (S. Africa), Technische Hoogeschool of Delft Diploma examn., including Latin, French, or German, and, subject to certain conditions, Transvaal Secondary School Certificate (in or after 1921), Cape Province Senior Certificate (in or after 1923).

(ii.) Provided that candidates have passed, with at least 4 subjects chosen in accordance with the regulations for a matricn. certificate of the

Board, an entrance examn. of any Univ. recognized by the Board, Senior Certificate of the Univ. of the Cape of Good Hope or School-leaving Certificate of the Board, Second Class Teachers' Certificate (Transvaal and Natal Province), Eindexamen in Holland of Gymnasium or Hogere Burgerschool, Diploma in Switzerland of "École Supérieure de Jeunes Filles," Abiturienten-examen or Maturitäts-Prüfung in Germany or Switzerland at a gymnasium, Hoofdakte-examen in Holland, any British Higher School Certificate, or School Certificate with credit. Dynamics of the Scottish Universities preliminary examn. and Mechanics of the Senior or School-leaving Certificate (S. Africa) are accepted in lieu of a matricn. science subject.

Candidates over the age of 25 who desire to proceed to a degree course or to some professional qualification and are not eligible for exemption under the ordinary regulations may, under certain conditions, be specially exempted from matricn. on the recommendation of the Univ. or other authority concerned.

The address of the Secretary (who is also Registrar of the Univ. of S.A.) is P.O. Box 392, Pretoria.

The Joint Committee for Professional Examns. (Address—P.O. Box 392, Pretoria), consisting of 2 representatives of each of the 5 Univs. (one for Law and one for Survey) and 5 persons appointed by the Govr.-General (of whom at least 2 must be for Law and 2 for Survey), controls and conducts: (1) Law Certificate Examn., (2) Civil Service (Lower and Higher) Law Examns., (3) Examns. in Theory of Land Surveying, and (4) Final Examn. for Patent Agents. It also conducts in certain cases on behalf of the Supreme Court the Advocates' Admission Examn. in Roman-Dutch Law and the Statute Law of the Union.

A NATIONAL UNION OF SOUTH AFRICAN STUDENTS was formed in 1924. It arranges annual tours to Europe; in Dec. 1930 and Jan. 1931 a group of 69 students from South African Univs. visited Europe. In Dec. 1931 and Jan. 1932 a group of 70 students from the S.A.S.U. visited England and the Continent, while 20 students in Engineering from the Witwatersrand Univ. made a 6 wks.' tour of factories, mines, and engin. labs. in Gt. Britain. In July and Aug. 1931 a group of 12 students from England, Germany, America, Sweden, Holland, and Poland toured S. Africa at the invitation of the Union. President, D. Marquard, Grey College School, Bloemfontein; Hon. Sec., W. J. van Rooijen, P.O. Box 1150, Cape Town; Hon. Sec., Travel Dept., A. Lewin, I Burnside Road, Cape Town.

### UNIVERSITY OF CAPE TOWN

### WITH WHICH IS INCORPORATED THE

### SOUTH AFRICAN COLLEGE

Postal address—P.O. Box 594, Cape Town. Telegrams—University, Rosebank.

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30	
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L.R.C.P. Lectr. O'Malley, C. K., M.C., M.B.,
Vaccination B.Ch., B.A.O., M.S. N.U.I.,
D.M.R.E. Camb. Lectr.

#### GENERAL INFORMATION

The University of Cape Town, with which is incorporated the South African College, created by Act 14 of 1916, came into legal existence on April 2, 1918, when the Council took over a bequest by Sir Julius Wernher of £250,000 and a donation of equal amount from Mr. (Sir) Otto Beit, who added £50,000 to a lapsed bequest by Mr. Alfred Beit. For early history, see Yearbook for 1930.

A site for the University was provided by Government at Groote Schuur,

Rondebosch. An appeal for funds in commemoration of the centenary of the S.A. College in 1929 realised over \$70,000.

S.A. Conege in 1929 realised over £70,000.

LIBRARY, 30,000 vols. Access to S.A. Public Library, 100,000 vols., specially well equipped in Bot. and Zool. Depts. Also Bolus Bot. Library and (for students of Teaching) the Library of the Educn. Dept. The Bolus Herbarium includes Guthrie Collection of Cape Flora. Marine Biol. Laboratory at St. James'.

FACULTIES. Arts, Commerce, Science, Engineering, Law, Medicine, Education, Music, and Fine Arts.

Degree Courses. B.A., 3 yrs.; B.A. (in Architecture), 5 yrs.; B.A. (in Fine Art), 4 yrs.; B.Sc. (in Pure Sc.), 3 yrs.; B.Sc. (in Applied Sc.), 4 yrs.; B.Sc. (in Surveying), 4 yrs.; B.Com., 3 yrs.; LL.B., 5 yrs.; B.Mus., 4 yrs.; B.B.Ch.B., 6 yrs. Higher degrees: M.A., 1 yr.; M.Sc., 1 yr.; M.Com., 1 yr.; B.Ed., 2 yrs. after B.A. The M.A., M.Sc., and M.Com. courses are open to graduates of any approved Univ.; so also are courses for the Ph.D. (open to bachelors of at least 3 yrs.' standing), and D.Litt., D.Sc. (open to bachelors of at least 4 yrs.' standing), for which attendance for 2 yrs. may be required. The M.Com. is open to B.Com. of 3 yrs.' standing. The LL.M. is open to LL.B. after 2 yrs.' attendance; the LL.D. is open to LL.B. or LL.M.

OTHER COURSES. For Teachers' Certificate.—Secondary, Primary, Univ. Diploma in Commerce, in Architecture, in Music, in Fine Art, in Speechtraining (Dramatic Art and Speech-training); Univ. post-graduate diploma in Public Health; Law Certif., Civil Service Law examn., Dentistry (preliminary subjects), and for students of Agric. and Theol. proposing to graduate in those subjects elsewhere.

RECOGNITION OF AND BY OTHER INSTITUTIONS. Attendance in Stellenbosch and the constituent Colls. of the Univ. of S. Africa is accepted under certain conditions as part of the attendance qualifying for degrees. Attendance on classes in Physics, Chem., Bot., and Zool. is accepted by Aberd., Bris., Durh., Edin., Glas., Liv., Manc., Dub., R.C.P. Lond., R.C.S. Eng.; so also are examns. in the Faculty of Arts on the special courses in these subjects (except by Dub.). Attendance on courses in Anat. and Physiol. is accepted by Aberd., Durh., Edin., and Glas., R.C.P. Lond., and R.C.S. Eng.; examns. in the Faculty of Arts in these subjects are accepted by Aberd. The Dentistry course is recognized by the R.C.S. Eng., R.C.P.S. Edin., and Edin. Dental School; the Hygiene course by the Conjoint Boards of Eng., Ire., Edin., and Glas.

FEES. For tuition, including registration, excluding laboratory fees, annually: Arts or Sc., from £24 to £30; Engin., £36; Med., £40 (average);

Law (LL.B.), £24 to £30, Law Certif., £11; Teaching, £24; Surv., £35; Commerce (B.Com.), £24; Architecture, £32; Fine Art, £32; Music, £25 to £40. Examn. and graduation fees, minimum: B.Ed., B.A., B.Sc., or B.Com., £13:15s.; B.Sc. Engin. or Surveying, £23; B.A. Architecture, £23; B.A. Fine Art, £18; Mus.Bac., £12; LL.B., £30; M.B., Ch.B., £30; Master's degree, £7; Doctor's, £13.

Scholarships open to Graduates of the Univ. Jamison, Croll, Porter, George Grey, Donald Currie, Willem Hiddingh, and several others, of £150 and £200 p.a., tenable generally for 3 yrs., and awarded from time to time after the M.A. or M.Sc. examns.; £150 p.a. for 2 yrs., awarded annually after the B.Sc. (Engin.) examn.; £150 for 1 yr., awarded annually after the final professional examn. for M.B., Ch.B. H. B. Webb Gift Research Scholp. of £160 p.a., tenable for three years, is available for award every three years to graduates of the University.

Travelling concessions to students are granted by the Union-Castle S.S. Coy. and (except to law students and married persons) by the Union Railways.

SCHOLARSHIP FOR BRITISH STUDENTS. A Jagger Scholarship of the annual value of £200 tenable for 3 (or possibly 4) years subject to satisfactory conduct and progress, offered in 1931 to a student from Gt. Britain proposing to take his degree at the Univ. of Cape Town. The scholar will enter the Univ. at the beginning of March 1932.

Information as to future awards from the High Commissioner's Office, South Africa House, Trafalgar Square, London, W.C.2.

RESIDENCE. Hostels for 300 men and 200 women. Board, laundry, and residence, £65-£70 p.a.

Publications. Calendar (Dec.); Students' Repve. Council's University Quarterly; Annals of the Bolus Herbarium; The History of South African College, 1829-1918, by Prof. W. Ritchie (2 vols.; Maskew Miller, Cape Town); The S.A. College and the University of Cape Town, 1829-1929, by Prof. E. A. Walker.

### THE YEARS 1930, 1931

Benefactions. A bequest of £10,000 by the late Sir Otto Beit; Max Albow Scholarship (bequest of £500 by late S. Albow); £1000 from Isaac Ochberg for Scholarship; William Solomon Memorial Scholarship (Miss E. J. Solomon, £5000).

NEW BUILDINGS. Otto Beit Univ. Union and J. W. Jagger Library opened.

NEW DEPARTMENTS AND POSTS. Second senior lectureship in Physics; Dept. of Speech-Training and Elocution; Dept. of Surveying with 6 (part-time) lectureships and assistantships; Research assistantship in School of African Life and Languages.

Changes in Regulations. Provision for 3-yr. courses in subjects for B.A. and B.Sc. (pure sci.). First qualifying course in Classical Culture for B.A. instituted; Courses of training for student-teachers rearranged by separation of academic and professional years of study, and provision made for a 2-yr. post-matricn. course for Primary Certif.; r-yr. post-grad. course for Scondary Certif., and a 2-yr. post-grad. course for B.Ed. with alternative r-yr. post-grad. course for B.Ed. for qualified teachers who have had at least 5 yrs.' experience in approved educational work.

RESIGNATIONS AND DEATHS. Dr. C. C. Elliott and Dr. E. B. Fuller (Lectrs.

in Clin. Surg.), Dr. T. A. Fuller (Asst. in Pathol.), Dr. H. Hodgson (Asst. in Anat.), Miss I. McLaggan (Lectr. in Speech-training), Dr. Hugh Smith (Lectr. in Dermatol.). Deaths: The Hon. Dr. J. W. Jagger and the Rt. Hon. Sir Wm. Solomon, valued members of the Council; Sir Otto Beit, K.C.M.G., a staunch friend and supporter of the Univ.; Dr. Hugh Smith, a former Clin. Lectr. in the Fac. of Med. Dr. Jagger founded the Jagger Chair of Econ., the Jagger Scholarship, and the Jagger Library. Sir Otto Beit contributed, jointly with Sir Julius Wernher, £500,000 for the building and endowment of the Univ. of Cape Town at Groote Schuur. His name is commemorated in the Wernher and Beit Med. Laboratories and the Otto Beit Univ. Union.

EXTRA-MURAL WORK. Extension lectures (5 courses); Phelps-Stokes lectures by Dr. C. T. Loram (on Native Education in Africa).

Honorary Degrees. D.Sc.—(1930) H. G. Fourcade, (1931) General Rt. Hon. J. C. Smuts.

STUDENTS (1930). Full-time, 1544; part-time, 343.

Degrees (1930). Ph.D., 6; M.A., 13; M.Sc., 10; M.Sc. (Engin.), 2; B.A., 88; B.Sc. (Pure Sci.), 12; B.Sc. (Engin.), 18; B.Sc. (Appld. and Indust. Chem.), 5; LL.B., 13; M.B., Ch.B., 34; B.Ed., 4; B.Com., 10. Univ. Diplomas, 62.

#### UNIVERSITY OF SOUTH AFRICA

Address-P.O. Box 392, Pretoria.

(By Act 12 of 1916 of the Legislature of the Union of South Africa th UNIVERSITY OF THE CAPE OF GOOD HOPE, incorporated by Act o the Cape Legislature in 1873, became and was incorporated in the UNIVER SITY OF SOUTH AFRICA, with administrative seat at Pretoria.)

CHANCELLOR—Field-Marshal H.R.H. THE DUKE OF CONNAUGHT AND STRATHEARN, K.G., K.T., K.P.

VICE-CHANCELLOR AND CHAIRMAN OF COUNCIL—N. M. HOOGENHOUT M.A., Ph.D.

CHAIRMAN OF THE SENATE—Professor T. F. DREYER, M.A., Ph.D.

President of Convocation—S. H. Pellissier, B.A.

REGISTRAR-C. C. GRANT, M.B.E., M.A.

#### CONSTITUENT COLLEGES

GREY UNIVERSITY COLLEGE, Bloemfontein (1855).

HUGUENOT UNIVERSITY COLLEGE, Wellington (1874).

NATAL University College, Pietermaritzburg (1909).

POTCHEFSTROOM UNIVERSITY COLLEGE, Potchefstroom (1905).

RHODES UNIVERSITY COLLEGE, Grahamstown (1855).

#### GENERAL INFORMATION

FACULTIES: Arts (including Fine Arts, Divinity, and Music), Education Science, Engineering, Agriculture, Law, Commerce and Public Administration Veterinary Science.

DEGREES. B.A., M.A., M.Ed., D.Litt., D.Phil.; B.D., D.D.; B.Mus. D.Mus.; B.Com., M.Com.; B.Econ., M.Econ.; B.Sc., M.Sc., D.Sc., B., M. and D.Sc. in Engin.; LL.B., LL.M., LL.D.

Courses for B.A., B.Com., B.Econ., B.Sc.—3 yrs.; B.Mus., B.A. (Fine Arts), B.Sc. Eng.—4 yrs.; LL.B.—3 yrs., after graduating in some faculty other than Law. *Internal* candidates for these degrees must have attended as registered matriculated students at a Constituent Coll. for the prescribed periods, provided that the Senate will accept as qualifying attendance on recognized courses at any of the other South African Univs. and may accept attendance and examns. at other recognized Univs. or at other institutions specially recognized by the Senate for the purpose. But the minimum attendance at approved courses at the Univ. of S.A. for the Bachelor's degree in Applied Science is the final 2 yrs., and for other Bachelor's degrees at least one-half of the courses prescribed. *External* students must have their curricula approved by the Senate and must pass the examns. prescribed for them from year to year by the Senate in order to qualify for degrees

The M.A., M.Sc., M.Com., and M.Econ. courses each cover r yr. after the Bachelor's degree; the M.Ed. 2 yrs. The M.Sc. (Engin.) may be conferred on a B.Sc. (Engin.) who has had, since graduating, 2 yrs.' practice of his profession. A thesis is required for the LL.M. or M.Sc. (Engin.). Doctorates are granted for approved theses to Bachelors of at least 5 yrs.' or Masters of at least 4 yrs.' standing (reducible to 4 and 3 respectively in consideration of attendance for one year as a research student at an approved institution). The Master's and Doctor's degree may also be conferred honoris causa.

Research (Bachelor) Degrees. On proof of special qualifications in any direction a person may be exempted from the matricule example, and admitted to courses of special study and research with a view to graduation, the conditions being determined by Boards of Faculty, subject to approval of Senate.

Diplomas in Domestic Science and Education (Lower) open to matriculated students—3 yrs.' course; in Education (Higher)—1 yr. course after graduation; in Bantu Studies (Lower and Higher); to Music Teachers.

Scholarships: 2 or 3 of £150 to £200 p.a. for 3 yrs. awarded annually on results of M.A. and M.Sc. examns.; Webb Research Scholarship, £200, open to holders of M.A. or M.Sc. of not more than 2 yrs.' standing, undertaking approved course of research work, renewable from year to year up to 3 yrs.; r Music Scholarship of £200 p.a. for 3 yrs., tenable alternately at Royal Coll. of Music, London, and Royal Acad. of Music, London.

School and Music Examns. The Univ. controls and conducts a *Junior Certificate* examn. of standard 2 yrs. below matrien., and examns. for Music Certifs. and Licentiate Diplomas (for Teachers of Music and Solo Performers). The examiners in the practical music examns. are nominated by the Assoc. Board of R.A.M. and R.C.M., London.

Publication. Calendar (January), 2s. 6d.

#### THE YEAR 1930

Students. Full-time: total, 1997, including 57 graduates. External and part-time: total, 1996, including 25 graduates.

Degrees Obtained. B.A., 167; B.Sc., 44; M.A., 27; M.Sc., 18; M.Ed., 3; B.D., 3; LL.B., 21; B.Com., 27; B.Econ., 4; B.Sc. (Eng.), 5; D.Sc. (Agric.), 2. Diplomas—Edu. (Higher), 99; Edu. (Lower), 7. Bantu Studies, 3.

# GREY UNIVERSITY COLLEGE, BLOEMFONTEIN, O.F.S.

# (No return received for 1930-1931)

CHAIRMAN OF COUNCIL—J. S. M. RABIE, B.A. Cape. VICE-CHAIRMAN—J. H. B. REITZ. RECTOR—Prof. D. F. MALHERBE, B.A., Dr.Phil. REGISTRAR—R. B. SAAYMAN.

# PROFESSORS, LECTURERS, ETC.

PROFESSORS, LECTURERS,	ETC.
Afrikaans and Dutch Malherbe, D. F., B.A. Cape, Dr.Phil. Freib. i. Br. Prof. Scholtz, H. v. d. M., M.A. Stell., D.Litt. Utrecht	Maartens, Miss M. J., M.Sc. Demr.  German and French Dekker, J. J., M.A., D.Phil. Vienna Lectr.  Law [Lectr.
Botany Potts, G., B.Sc. Durh., Ph.D. Halle Prof. Gemmell, Miss D. M., B.Sc. Demr. Chemistry Rindl, M., D.Ing. Charl. (Organ. and Genl.) Prof. Zweerts, F., Chem. Ingr. Delft (Phys. and Appl.) Lectr.	Brink, C., B.A., LL.B. Cape Horwitz, L., B.A., LL.B. Cape Lectr. Edeling, H. J., B.Sc., LL.B. Cape Lectr.  Mathematics (Pure and Applied) Arndt, W. F. C., B.A. Cape, Dr.Phil. Gött. Prof. Arndt, J. G. A., M.Sc. Cape, Dr.Phil. Gött. (Applied M.)
Meyer, T., D.Sc. Leyd. Demr.  Classics [Prof. Ross, J. A., M.A. Cape (Greek) Steven, S. J. H., B.A. Ox., M.A. Lectr.  Commerce Greenwood, H. Lectr.  Kriek, P. L., D.H. Rotterd., M.A. Lectr.  Economics and Politics [Lectr. Fourie, I. S., B.A. S.A. and Ox.  Kriek, P. L., D.H. Rotterd., M.A. Lectr.	v. d. Westhuizen, P. J., M.Sc. Stell. Asst.  Pedagogy  Eybers, E., M.A. Edin., Ph.D. New York Prof. Keyter, J. de W., M.A. Stell., Ph.D. Mun. Lectr.  Philosophy  Forsyth, T. M., M.A., D.Phil. Edin. Prof. Schmidt, C. H., M.A. Stell., B.Litt. Ox. (Psychol.) Lectr.
English Hopwood, D. P., M.A. Ox., Litt,D. Stell. Prof. Newman, Mrs. G., M.A. Ox. Lectr. Geology Von Bonde, W., M.A., D.Sc. Cape, F.G.S. Prof.	Physics Logeman, W. H., M.A. Cape Prof. v. d. Byl, J., M.Sc. Stell. Demr. Zoology Dreyer, T. F., M.A. Cape, Ph.D. Halle Prof. van der Linde, W., B.Sc. Demr.

#### GENERAL INFORMATION

Founded in 1855 by Sir George Grey, the College was reorganized in 1904, constituted a Univ. College in 1907, and incorporated by statute in 1910. It is 2 miles from Bloemfontein town. It provides courses for degrees in Arts, Science, and Law, and for the Teachers' Diplomas, and prelim. training for Med., Engin., Agric., and Comm.

Hostels for men and women within the Coll. grounds. Board and Residence, £15 per quarter. Tuition Fees: £5 per quarter (Law, £2:10s.).

SCHOLARSHIPS, open to residents of O.F.S. for study abroad, 4 or 5 of £150 p.a. for 3 yrs.; of these 3 are for Agric. study.

Univ. Extension lectures, chiefly by members of the staff, in Bloemfontein and other centres. Publication: Calendar (Dec.).

### THE YEARS 1929, 1930

NEW BUILDINGS. Physics Block in course of erection.

EXTRA-MURAL WORK. Institution of B.Com. 2nd year.

DEATH. Prof. W. S. Johnson, Feb. 1929.

STUDENTS. 1930: full-time: total, 208, including 43 graduates. Part-time: total, 110, including 31 graduates.

DEGREES OBTAINED. 1929: B.A., 48; B.Sc., 15; M.A., 3; M.Sc., 1; LL.B., 1; H.E.D., 24; M.Ed., 2.

# HUGUENOT UNIVERSITY COLLEGE, WELLINGTON, C.P.

President and Registrar—Miss Bertha Stoneman, D.Sc. Coinell.
Treasurer and Librarian—Miss M. S. Chamberlain.

#### PROFESSORS AND LECTURERS

Maritz, Sheila, M.Sc. Sr. Lectr.

Chemistry [(on leave) Prof.
Kilroe, Miss F. C., B.Sc. Lond.
Fear, Miss C. M., B.Sc. Brist.
(acting).

Classics [(Latin) Prof.
Sargent, Helen A., M.A. Oberlin
Fremantle, Miss I. M. E., M.A.,
B.Ed. Cape T. (Gk.) Sr. Lectr.

de We
C.
Snell,
Eng
Fre
Hanse
His
Staffo

Collins, Rhoda, M.A. Col., B.Sc. Chic. Sr. Lectr.

Dutch Lang. and Lit.

Domestic Science

Botany

Booysen, Miss H. J., M.A., B.Ed. Stell. Prof. Education

de Wet, MissF. C., M.A. Col., B.A. Cape Prof.

English Lang. and Lit.

Snell, Florence M., M.A. Oberlin, Ph.D. Yale Prof.

French and German [Sr. Lectr. Hansen, Christine, Ph.D. Heid.

History [Pr Stafford, Susan, M.A., N.U.I.

Horticulture

Hebditch, Miss G. L., Dipl. in H.
Reading (on leave) Lectr.
Hopson, Miss M. L., Dipl. in
Dairying and H. Reading
(acting).

2 N

Mathematics [Prof. Hatch, Eliz. E., M.A. Camb.

Philosophy [Prof. Stoneman, Bertha, D.Sc. Corn. Robson, Grace M., B.A. Cape
Sr. Lectr.

Physics [Sr. Lectr. Cox, Martha, B.Sc. Corn.

Zoology and Physiology

Theiler, Gertrud, B.A. Cape, D. ès Sc. Neuchâtel Sr. Lectr.

#### GENERAL INFORMATION

Originally a department of the Huguenot Seminary founded by Dr. Andrew Murray in 1874, the College was incorporated by Act of the Cape Legislature in 1907 as a College for Women and became a constituent College of the Univ. in 1918.

LIBRARY, over 9000 vols. Herbarium, over 2000 specimens. Laboratories, Bot., Chem., Physics, Zool., Dom. Sc., Physiol., Psych.

Courses for B.A., B.Sc., M.A., M.Sc., and Diploma in Education. Special courses in Horticulture and in Domestic Science.

EXPENSES. Class Fees, £20 per annum. Board at the College Hostel, £45 p.a. Publication: Calendar (Dec.).

# THE YEARS 1930, 1931

BENEFACTIONS. £1045.

STUDENTS. Full-time: total, 76, including 21 graduates.

Degrees obtained (1930). B.A., 14; M.A., 1; B.Sc., 0; Higher Dipl., 5; Lower Dipl., 2.

# NATAL UNIVERSITY COLLEGE, PIETER-MARITZBURG, AND DURBAN, NATAL

Address—P.O. Box 375, Maritzburg.

Chairman of Council—Rev. L. Sormany, D.D., O.M.I. Principal—Prof. J. W. Bews, M.A., D.Sc. Edin.

REGISTRAR—E. W. BARNS, M.A. Lond.

# PROFESSORS AND LECTURERS

Accountancy and Commerce
Oldham, O., A.C.I.S. Prof.

Art [(Fine Arts) Prof.
Oxley, O. P. J., A.R.C.A. Lond.

Auditing
Byrd, K. F., B.A. Lond. Lectr.

Botany [Prof.
Bews, J. W., M.A., D.Sc. Edin.
Bayer, A. W., M.Sc. Lectr.

Fisher, Miss B. S., M.Sc. Lectr.

Chemistry

Denison, R. B., D.Sc. Leeds, M.A. Cape, Ph.D. Bres. Prof. Mudie, A. D., M.A., B.Sc. St. And. Lectr.

Classics
Petrie, A., M.A. Aberd., B.A.
Camb. Prof.

Dutch and German
Besselaar, G., M.A. Cape, D.Litt. Ghent Prof
2 101
Nienaber, G. S., M.Ed. Lectr.
Economics and Econ. Hist.
Prof.
Palmer, Mrs. M., M.A. Glas. Lectr.
Education
Ferguson, J. G. W., M.A. Ox. and
St. And. Prof.
Reid, A., M.A., B.Sc. Aberd.
Assoc. Prof.
Engineering, Electrical
Clark, H., B.Sc.Eng. Lond., D.I.C.,
A.C.G.I. Prof.
Phillips, W. E., B.Sc. Lectr.
Engineering, Mechanical
Neal, J. H., A.R.C.S. Lond. Prof.
English and Philosophy
Waterhouse, O., M.A. Vict. and
Leeds Prof.
Sweeney, G. W., B.A., LL.B. Cape
Lectr.
Letti.

French
Leiper, Miss M., M.A. Lectr.

Geology and Geography [Lectr. Jehu, R. M., M.Sc. Wales, F.G.S.

History [Prof. Hattersley, A. F., M.A. Camb.

Law [Prof. Burchell, F. B., M.A., LL.B. Camb. Sweeney, G. M. J., B.A., LL.B.

Mathematics, v. also Physics McKinnell, J., M.A., B.Sc. Glas. Prof.

Physics
Mesham, P., M.Sc. Liv. Prof.
Coutts, J. R. H., M.Sc. Lond.,
A.Inst.P. (also Applied
Maths.) Lectr.

Zoology [Lectr. Bush, S. F., D.Phil. Ox., M.Sc.

#### GENERAL INFORMATION

Established by an Act of 1909, the College was opened in 1910 in the Town Hall and moved in 1912 to its own buildings (which, with equipment, cost £60,000) in the suburb of Scottsville. A new Science block and a women's hostel were added in 1921 and a hostel for men in 1928. Students have access to Maritzburg Botanical Gardens and Govt. Museum.

Courses leading to the B.A., B.A. (Fine Arts), B.Com., B.Sc., M.A., M.Sc., etc., 1st examn. for B.Sc. in Agric. (including 1st yr.'s course for Med. students), LL.B., Natal Law Certif. and Natal Advocates' Law examn., Survey examn. (theory only). Recently Faculties of Engineering and Commerce have been instituted in Durban in co-operation with the Natal Technical College, five of the staff of which have become members of the Senate of the Natal Univ. College—four professors and one lecturer. One of the former is the Professor of Fine Arts; and a 4 yrs.' course for the B.A. (Fine Arts) is provided in Durban.

Univ. work in Engin., Commerce, and Fine Arts in Durban is now separated from that of the Technical Coll., is carried on in the new Howard Memorial Building, and is controlled academically and financially by the Council of the Natal Univ. Coll.

 $\ensuremath{\mathtt{Bursaries}}$  . A number of Bursaries are offered by the Govt., municipalities, societies, and schools.

Hostels for women and men students.

LIBRARY contains c. II,000 vols.

Publication: Calendar (March).

THE YEARS 1930, 1931

Benefactions. "Howard Davis" Memorial College, Durban, £60,000, on 35 acres of land granted by Durban Corporation. "William Hudson" Chair of Economics endowment, £20,000.

New Posts. Prof. of Applied Maths., Lectrs. in Physics, English, Engineering (Civil), Engineering (Mech.), Botany.

EXTRA-MURAL WORK, over 50 % increase.

STUDENTS. Full-time: (1930), 337, including 45 graduates; (1931), 360 including 37 graduates. Part-time: total (1930), 106; (1931), 161.

Degrees obtained. B.A., 17; M.A., 1; LL.B., 6; B.Sc., 6; M.Sc., 4; B.Sc. (Eng.), 4; B.Com., 11; Diplomas (Education): Lower, 5; Higher, 24.

# THE POTCHEFSTROOM UNIVERSITY COLLEGE, TRANSVAAL

CHAIRMAN OF COUNCIL—Rev. W. J. DE KLERK. RECTOR AND CHAIRMAN OF THE SENATE—Prof. F. POSTMA, D.Litt. REGISTRAR-Prof. J. C. VAN ROOY, M.A., Ph.D. LIBRARIAN-Prof. G. DEKKER, M.A., D.Litt.

Sr. Lectr.

Prof.

#### PROFESSORS AND LECTURERS

Botany

Goosens, A. P., M.Sc. [Prof. Chemistry du Plessis, D. J., Ph.D. Bonn, M.Sc. Classics Postma, F., D.Litt. Amst. Prof. [(Lit.) Prof. Dutch Dekker, J., D.Litt. Amst., M.A. Labuschange, F. J., M.A. (Lang.) Sr. Lectr. Economics van der Merwe, J. P., D.Litt. Sr. Lectr. Amst., M.A. English Norenius, Miss A. C., M.A. Prof. Lectr. . . . . . . German [Prof. Schulze, H. G., Ph.D. Bonn, M.A. History van der Walt, A. J. H. J., Ph.D. Berlin, M.A. Prof. Mathematics and Applied Maths.

van Rooy, D. J., M.A.

**Physics** van Wageningen, G. Dean and Prof. Pedagogy

van Heerden, J. S., M.A. Harv. Coetzee, J. C., M.A., M.Ed., D.Phil. (Psychol.) Dean and Prof.

[Prof.

Psychology, Logic and Metaphysics

Stoker, H. G., Ph.D. Köln, M.A. Prof.

Ethics and Politics du Plessis, L. L., M.A., B.Econ. Sr. Lectr.

Theology du Toit, J. D., D.D. Amst. Prof. du Plessis, J. A., B.A. Cape. Dean and Prof.

de Wet, C. J. H., D.D. Amst. Prof. van Rooy, J. C., Ph.D. Amst., M.A.

Zoologv Sr. Lectr. Eiselen, G. T. S., M.Sc. Witw.

#### GENERAL INFORMATION

Founded 1869, and admitted in 1921 as a Constituent College of the Univ. of South Africa. For early history, see *Yearbook* for 1929, p. 503.

Publication. Calendar (Dec.).

### THE YEAR 1931

BENEFACTIONS. Municipality, £150; Reformed Church, £1750.

RESIGNATION. Mrs. M. M. van der Merwe (Botany).

STUDENTS. Full-time: 220, including - graduates.

DEGREES OBTAINED (1930). B.A., II; B.Sc., 3; B.D., 4; M.A., 5; M.Sc., I; M.Ed., 3; Diplomas: H.E.D., 6.

# RHODES UNIVERSITY COLLEGE, GRAHAMSTOWN, C.P.

Address—P.O. Box 94.

Chairman of Council—P. C. Gane, K.C., M.A.

Master and Chairman of Senate—Prof. C. W. Bowles, M.A. Camb.

Registrar—Major E. B. Walker, M.B.E., M.C.

### PROFESSORS, LECTURERS, ETC.

Anatomy and Physiology
Drury, E. G. D., M.D. Lond. and
Cape, B.S. Lond., D.P.H.
Durh., M.R.C.S., L.R.C.P.

Lectr.

Art
Winter-Moore, A., A.R.C.A. Prof.
Rutherford, Mrs. J. Lectr.
Williams, Miss N. Asst.

Botany

Smith, N. J. G., M.A., B.Sc. Edin., Ph.D. Camb. Prof. Britten, Miss L. L., B.A. Cape

Sr. Lectr.
Pope, F. B., B.Sc.
Demr.

Chemistry and Metallurgy

Barker, W. F., B.Sc., Ph.D. Liv. Prof.

Smith, J. L. B., B.A. Cape, M.Sc. Stell., Ph.D. Camb. Lectr.

Dugmore, L. M., M.Sc. Lectr.
..... Demr.
Belchetz, L., M.Sc. Demr.

Classics

Bowles, C. W., M.A. Camb. and Cape (Greek) Prof. Barratt, A. J., M.A. Lectr. Gane, E. G., M.A. Lond.

Actg. Lectr. Commerce, Accounting, Business

Management, etc. Liddell, D., M.A., B.Com. Edin.

Sr. Lectr.

Dingemans, G. F., M.A. Edin. and Cape Prof. Hendrikz, Miss P. A., M.A. S.A. Asst. Lectr.

Economics [Sr. Lectr. Hall, R. L., B.A. Ox. and Cape

Education
Hughes, J., M.A. Wales Prof.
Hendrikz, Miss P. A., M.A. Lectr.
Wild, E. H., Ph.D. Lond., M.Sc.
Lectr.

3 Instrs.

English

Kidd, A. S., M.A. Camb., Manc. and Cape Prof. Jones, A. Watkin, B.A. Lond., B.Litt. Ox. Sr. Lectr.

uiton D

Guiton, P. A., B.A. Lond. Prof. Geology and Mineralogy [Prof. Mountain, E. D., M.A. Camb.

Rennie, J., M.A., Ph.D. Camb. Lectr.

German

..... Prof.

History

Ewing, J., M.C., M.A. Edin. Prof. Rousseau, I. J., M A Ox.

Sr. Lectr.

Law
McKerron, G. G., M.A. Edin.,
LL.B. Edin. and Cape Prof.
Back, A. W., LL.B. Lond. Lectr.
Jennett, A., B.A., LL.B. Lectr.

Mathematics, Pure and Applied
Burnett, D., M.A., B.Sc. Aber.,
Ph.D. Camb. Prof.
Wood, A. H., M.A. Cape Sr. Lectr.
King, J. W., M.Sc. Lectr.
Music [Lectr.

Paterson, Miss K., A.R.C.M.

Philosophy

Lord, A. R., M.A. Ox. Prof. Wild, E. H., Ph.D. Lond., M.Sc. Sr. Lectr.

Levyno, E. C., B.A. Asst. Lectr.

Physics

Varder, R. W., M.A. Cape Prof. Watson, S. W., M.A. Camb., B.A. Cape Sr. Lectr. van Wyk, C. M., M.Sc.

Asst. Lectr.
Winter-Moore, Prof. A. (Drawing
and Graphics)
Instr.
Mech. Asst.

Physiology, v. Anat. and Physiol.

Zoology [Prof. Duerden, J. E., M.Sc. Cape, Ph.D. J. Hopk., A.R.C.S. Lond. Brock, Miss G. T., D.Phil. Ox., M.Sc. Lectr.

#### GENERAL INFORMATION

Incorporated 1904. A Constituent College of the Univ. of South Africa. For historical sketch, see Year Book for 1929, p. 505.

Rhodes Univ. Coll. possesses the only school specially built for the teaching of Fine Art in S.A.

LIBRARY. 18,600 vols.

LABORATORIES. Applied Maths., Bot., Chem., Geog., Geol., Metall., Mineral., Phys., Phys. Chem., Zool.

COURSES. B.A., B.Sc., B.Com., B.Econ., M.A., M.Sc., LL.B., Surveying, Law Certif. (Attorneys), Civil Service Law, Dipl. in Com., Higher and Lower Dipl. in Educ., Art Courses, 1st yr. Course in Med., Dent., Eng., Agric., Vet.. Sc., Mining, Music, and Architecture.

Tuition Fee for full degree course, £24.

College Scholps. open to graduates: 2 of £40, 1 of £50.

Hostels for 200 men ("College," "Botha," "Milner," and "Graham" Houses), 130 women ("Oriel" and "Jameson" Houses), with dining halls, etc. Board and Residence, £60 p.a. inclusive.

Publications. Calendar (November); The Rhodian (twice a year).

# THE YEARS 1930, 1931

Benefactions. Annual Grants: Rhodes Trustees, £1000; Municipal and Divisional Councils of Eastern Province, £2500; S. Rhodesia Govt., £500.

VISITING TEACHERS. Miss V. Magniac, "League of Nations"; Dr. S. Schonland, "Fauna of Grahamstown"; Prof. A. Winter Moore, "Tour of Europe"; Mr. F. L. Marvin, "Is Progress a Myth"; Prof. Jesse Jones, "Essentials of Education"; Dr. Broom, "Nature's Spiritual Moving Force"; Dr. J. F. Phillips, "Fighting the Tsetse Fly in East Africa."

VISITS OF MEMBERS OF STAFF TO OTHER UNIVS. Prof. W. F. Barker on study-leave in England; Prof. N. J. G. Smith on leave for the British Assn. centenary meeting.

RETIREMENTS. Sir John Adamson (Master), Prof. D. Williams (Maths.).

DEATHS. Prof. H. S. Bodmer (French), Prof. P. B. Weehuizen (German).

Students. Full-time, 394, including 16 graduates Part-time, 28, including — graduates

Pursuing Studies Abroad. Oxford, 9; Cambridge, 2; London, 7; Leeds, r; Edinburgh, r

DEGREES. B.A., 30; B.Sc., 23; M.A., 5; M.Sc., 7; B.Com., 6; Higher Dip. in Edn., 26; Surveying, 9; Law Certif., 8.

### UNIVERSITY OF PRETORIA

(Incorporating as from 10th Oct. 1930 the TRANSVAAL UNIVERSITY COLLEGE, PRETORIA, TRANSVAAL)

CHAIRMAN OF COUNCIL—N. M. HOOGENHOUT, M.A., Ph.D.

VICE-CHAIRMAN-Mr. Justice G. J. MARITZ.

RECTOR-Prof. A. E. DU TOIT, M.A. Cape.

CHIEF CLERK—R. L. BARRY, B.Sc. Stell., M.B.A. N.Y.

#### PROFESSORS AND LECTURERS

Accountancy, v. Commerce Agriculture, v. infra Architecture Bell, John H., M.C., F.S.I.. . . . . . . L.R.I.B.A. Prof. Lecturers:

Anderson, Miss G., A.R.C.A. (Freehand Drawing).

Eddey, E. G., B.Sc. (Eng.) (Theory of Structures).

McIntosh, W. G., B.Arch. Witw. Whale, G. R., M.R.S.I. (Sanitation and Hyg.).

Lawrie, A. Fraser, A.R.I.B.A. (Design, Hist. of A. and Town Planning).

Auditing

Petyt, A. J. Lectr. Banking, v. also Commerce

van Wermeskerken, W. Lectr. Bantu Studies

Lestrade, G. P., M.A. Cape, A.M. Harv. (Sepedi I., Zulu, Bantu Philol.)

Van Warmelo, N. J., Ph.D. Hamb., M.A. Stell. (Social Anthropol.) Lectr.

Bio-Chemistry, v. infra Vet. Science

Biology, v. Zool. and Biol.

Botany, v. also Vet. Science Louis Botha Prof. Mogg, A. O. D., M.A. Camb.

Sr. Lectr. Elbrecht, B., B.A., M.Sc. S.A.

Sr. Lectr. Lectr.

Chemistry

Malherbe, D. F. du T., M.A. Cape, Ph.D. Halle Schilz, W. E., D.I.C. Lond., Ph.D. Munich, M.Sc. S.A.

Chemistry, Physical

Tromp, F. J., B.A. Cape and Camb., D.Sc. S.A., Dean, Fac. of Sc. Prof.

Classics, v. also History, Ancient Viljoen, H. G., D.Litt.

(Greek) Prof. Boxwell, J., M.A. S.A.

(Latin) Prof. Commerce and Public Administration, v. also Auditing, Banking, Geog.

Arndt, E. H. D., B.A. S.A., M.A., Ph.D. Columbia (Econ. and E. Hist.) Dean of Fac. Prof.

Barnes, S. R., F.S.A.A. (Accountancy) Prof.

Brookes, E. H., M.A., D.Litt. S.A. (Public Admin. and Polit.

Norval, A. J., D.Merc. Rotterdam Prof.

Viljoen, S. P., M.A. Cape, Ph.D. Lond. (Econ. and E. Hist.) Sr. Lectr. Gey van Pittius, E. F. W., M.A.	Hebrew [Prof. Gemser, B., D.Litt., Th.D. Gron. Booysen, F. J. Z., B.A. Lectr.
S.A., Ph.D. Lond. (Pub. Admin. and Polit. Sc.) Sr. Lectr. Dutch, Afrikaans and Germanic Philol.	History Fouché, L., B.A. Cape, Ph.D. and Litt.D. Ghent Prof. Agar-Hamilton, I., M.A. Cape, M.A., B.Litt. Ox. Sr. Lectr.
Bokhorst, M., Ph.D. Leid. (Hist. of Netherlands Culture)	Home Economics, v. Agriculture  Law, v. infra
du Toit, M. L., M.A. Stell., Ph.D. Vienna (Hist. of Afrikaans Art and Culture) Prof. Le Roux, T. H., B.A. Cape, Litt.D. Leid. (Hollands) Prof. Kritzinger, M. S. B., M.A., D.Litt. S.A. (Hollands) Sr. Lectr.	Mathematics  Duminy, J. P., M.A. Cape, B.A., B.Sc. Ox. Prof. de Loor, B., M.Sc. S.A., Ph.D. Amst. Sr. Lectr.  Langerman, S. M., B.A. Camb. Lectr.
Rademeyer, J. H., M.A. S.A. (Afrikaans) Lectr. Economics, v. Commerce	Mathematics, Applied Sherwood, E. T. G., B.A. Cape, M.A. Camb. Prof.
Education Louw, A. J., B.A. Cape, B.Sc. Edin. Prof.	Music Ketelbey, H. Prof.
Bosman, J. C., M.A. Harv. Prof.  English  Wallis, J. P. R., M.A. Liv., Dean of Fac. Prof.  Titlestad, R. M., M.A., LL.B. S.A., B.A. Ox. Sr. Lectr.	Philosophy Hugo, T. J., B.A. Cape, Ph.D. Gron. Prof. Findlay, J. H., B.A. Ox., M.A. S.A. Sr. Lectr. Physics
Entomology, v. Agriculture French	van der Lingen, J. S., B.A. Cape, Ph.D. Johns H., F.I.P., F.R.S. Prof.
Lamont, H. P., M.A. Wales, B. ès L. Besançon Sr. Lectr.  Geography and Econ. Geog.	Voss, V., B.A. Cape, M.A., Ph.D. Johns H. Sr. Lectr. Immelman, M. N. S., M.Sc. Cape
Plummer, F. E., M.A. Camb. Prof. Hugo, C. F., B.A. S.A., M.A. Stell. Lectr.	Lectr.  Political Science and Public  Admin., v. Comm.
Geology De Villiers, L. C., Ph.D., M.E. Freib. Prof. Scholtz, D., M.Sc. Stell. Sr. Lectr.	Psychology [Sr. Lectr. Skawran, P., Ph.D. Bonn Willemse, W. A., M.A. S.A. Lectr.
German de Villiers, W. P., B.A. Cape, Ph.D. and Litt.D. Ghent Prof. Mostert, L. C., D.Phil. Hamb. Sr. Lectr.	Theology Greyvenstein, J. H. J. A., B.A. Cape, Th.D. Utr. (Christian Ethics and New Test. Exegesis) Prof.

Dairying Macmillan, E., M.A., D.D. Glas. Davel, H. B., B.Sc. Iowa (Philos. of Religion) Prof. Gemser, B., D.Litt., Th.D. Gron. Union Castle Prof. Domestic Science (Old Test. Exegesis), Dean of Davidtsz, Miss M. Ţ., Fac. Prof. Sr. Lectr. Engelbrecht, S. P., Th.D. Utr. Columbia Smit, Miss M. F. (Needlework) (Church Hist.), Dean of Fac. Lectr. Prof. HorticultureVeterinary Science, v. infra Powell, H. Clark, B.Sc. Calif. Zoology and Biology Union Castle Prof. Malan, D. E., M.A. Cape, Ph.D. Poultry Zür. (Zool.), Dean, Fac. of Sc. van Rooyen, L. A., M.Sc. Corn., Prof. B.Sc.Agr. S.A. Malan, D. J., M.Sc. S.A. Lectr. Union Castle Sr. Lectr. Brink, C, B.Sc. Stell. Lectr. Zootechnics, v. infra Vet. Science Child Guidance Clinic Te Water, M. A., M.B., Ch.B. Hd. Agriculture Thompson, S. Lucile Lectr. Agric. Botany Hector, J. M., B.Sc. Aberd. Prof. Law Wyers, Miss E. E., B.A. S.A. Demr. v. also Polit. Sci. Agric. Chemistry Ross, J. C., B.A. Cape, M.Sc., Civil Procedure and Evidence Dowling, W., B.A. Cape, B.A., Ph.D. Ill. Prof. B.C.L. Ox. Lectr. Theron, J. J., B.Sc.Agr. S.A., Ph.D. Calif. Sr. Lectr. Criminal Law van Wijk, L. P., B.Sc.Agr. S.A. Bresler, C. P., B.A. Cape, M.A., Asst. LL.B. S.A. (and Procedure) Agric. Economics Lectr. Leppan, H. D., M.C., B.Sc. (Agric.) Vorster, J. S., LL.D. Leid. Lectr. Tor., M.Sc. Camb. International Law Agric. Engineering Heather, H. G., M.A. Ox. Lectr. van Tonder, A. J., B.A. Cape, *Jurisprudence* M.Sc. Calif., A.C.G.I. Pont, D., LL.D. Utr., LL.B. S.A., Sr. Lectr. Dean of Fac. Prof. Agr. Entomology [Prof. Mercantile Law [Lectr. Faure, J. C., M.A., B.Sc. Corn. De Wet, Q., B.A. S.A., B.A. Ox. Janse, A. J., D.Sc. S.A. Lansdown, A. V., B.A., LL.B. (Systematic E.) Hon. Prof. S.A. Agronomy Murray, M., B.A. Stell., B.A., Pullen, A. R., M.Sc. III., B.Sc.Agr. LL.B. T.C.D., LL.B. S.A. Prof. Lectr. Thompson, W. R., B.Sc. (Agric.) Retief, M., LL.B. Stell. Lectr. Sr. Lectr. Roman and Roman Dutch Law Animal Husbandry Lecturers: Bosman, A. M., B.Sc. Tor. Reitz, R., LL.D. Amst. (Roman Dean of Fac. Prof. L.).

Sr. Lectr.

Hertzog, A. E., B.A. Stell., B.C.L. Ox., LL.D. Leid. (Roman D. L.).

# Veterinary Science

v. also Agric.

Henning, M. W., M.R.C.V.S. Prof.

Bio-Chemistry

Malan, A. I., M Sc. Stell. Prof. Graf, H., B.Sc., B.V.Sc. S.A.

Lectr.

Vet. Anatomy

Curson, H. H., D.M.V. Hanover, F.R.C.V.S. Prof.

Vet. Bacteriology and Infectious Diseases

Robinson, E. M., D.M.V. Berne, D.V.Sc.S.A., F.R.C.V.S. Prof.

Alexander, R. A., B.V.Sc., B.Sc. Agr. (and Protozool.)

Sr. Lectr.

Vet. Hygiene and Helminthology
Le Roux, P. L., B.Sc. Edin.,
M.R.C.V.S. Lectr.

Vet. Hygiene, Municipal Snyman, P. S., B.V.Sc. S.A.

Vet. Medicine [Prof. Parkin, B.S., B.A.Cape, M.R.C.V.S.

Vet. (State) Medicine

Viljoen, P. R., D.M.V. Berne, M.R.C.V.S. Prof.

Vet. Parasitology

Mönnig, H. O., Ph.D. Zür., B.A. Cape, B.V.Sc. S.A. (also Entomol, and Helminthol.) Prof.

Vet. Pathology

De Kock, G. v. d. W., D.M.V. Berne, D.Sc., M.R.C.V.S. Prof.

Thomas, A. D., D.V.Sc. S.A.

Lectr.

Vet. Pharmacology and Toxicol.

Steyn, D. G., B.Sc. Stell., Dr.Med.

Vet. Vienna
Vet. Physiology

Quin, J. I., D.V.Sc. S.A. Sr. Lectr.

Vet. Physiology, Pathological

Fourie, P. J. J., M.R.C.V.S. Prof.

Vet. Surgery and Obstetrics

Quinlan, J. B., D.M.V. Hanover, D.V.Sc. S.A., F.R.C.V.S. Prof. Vet. Tropical Diseases and Proto-

zoology

Du Toit, P. J., B.A. Cape, Ph.D. Zur., D.M.V. Berl., Dean of Fac. Prof.

Zootechnics

Bisshop, J. H. R., B.Sc. Agr., B.V.Sc. S.A. Lectr.

#### GENERAL INFORMATION

Founded 1910. For early history, see Yearbook, 1929, pp. 508-9.

Lectr.

In 1930 the Coll. was incorporated by Act of the Legislature of the Union of S. Africa as an independent Univ. under the title of The Univ. of Pretoria. The Univ. consists of the Chancellor, the Vice-Chancellor, the Rector, the Council, Senate, and Convocation, together with the Professors, other teachers, and students of the Univ. The Rector is ex officio Chairman of the Senate.

The Act provides for Faculties or Departments of Arts, Science, Education, Commerce, and Public Administration, Agriculture, Veterinary Science, Law, Music, Theology, and such other Faculties or Depts. as the Council may, after consultation with the Senate, with the approval of the Governor-General and subject to the Statutes, from time to time establish.

Courses are provided for all Degrees and Diplomas of the Univ. in Arts, Science, Agric., Vet. Sc., Law, Div., Music, and Commerce and Public Administration. Fee for full degree course, £17:5s. to £27:6s. p.a.

A special feature of the Univ. is the work done in the Extra-mural Faculties. In a building in the centre of the town three miles from the main buildings

lectures are given, out of ordinary business hours, for the benefit of public servants, articled clerks, commercial men and teachers. About 400 students are enrolled, practically all for full degree courses: for B.A., Law B.A., LL.B., B.Com., B.Econ., a Master's degree, Law Certificate, or Banker's Certificate. The Faculty of Agriculture is one of two in South Africa. It is specialized along different lines from the Faculty in Stellenbosch University, attention being paid to Animal and Field Husbandry and Citriculture. A course in Sheep and Wool, as a subject for a degree, has been instituted. The Faculty of Veterinary Science was grafted on to the Veterinary Research Laboratory at Onderstepoort (v. App. XXIV. B. IV.). A five-year course in Tropical Veterinary Medicine is provided, leading to the degree of B.V.Sc. Full courses are provided for Architecture and Surveying. A Child Guidance Clinic was opened in 1929. Courses in Bantu Studies are being extended.

Hostels. 4 for men, including the Dutch and English Church Hostels, and I for women. Board and Residence, £60 p.a.

LIBRARY, 57,600 vols. LABORATORIES: Applied Maths., Bot., Chem., Entom., Geogr., Geol., Phys., Psychology, Zool., Agric., Bot., Agric. Chem., Agronomy, Vet. Anat. Astronomical Observatory.

UNIVERSITY EXTENSION. The faculties of Agric, and Vet. Sc. co-operate with the Union Dept. of Agriculture in connexion with the extension train service organized by it. Public Lectures are being organized in Pretoria and surrounding districts.

Publications. Calendar (November); bulletins containing result of research by members of staff.

# THE YEARS 1930, 1931

Benefactions. Various donations totalling £5005.

NEW BUILDINGS. Administration Block; Extension Dairy Research.

New Departments and Posts. Chair Afrikaans Kuns en Kultuur. Third Lecturer—Domestic Science.

OTHER DEVELOPMENTS. Grant of £600 p.a. for 5 yrs. from Imperial Chemical Industries, Ltd., for investigation of soil fertility under summer rainfall conditions, with special reference to nitrogen relations. A full-time chemist and a full-time bacteriological assistant for this work. Grant of £1000 p.a. for 5 yrs. from Sunday's River Citrus Co-operative for manurial and other investigations in regard to citrus production in the Sunday's River area. A full-time horticulture asst. appointed for this work.

CHANGES IN REGULATIONS. [No return.]

EXTRA-MURAL WORK. Students prepared for Legal B.A., LL.B., B.Com., B.A. (Admin.) (formerly B.Econ.) and Professional Examns. in Law, Accounting and Banking.

RETIREMENTS AND DEATHS. Prof. Dr. H. Reinink (Greek). Prof. Dr. C. E. H. Bremekamp (Botany), Dr. H. G. W. J. Schweickerdt (Botany). Dr. H. O'Grady (Classics), died.

Honorary Degrees. D.Litt.—General J. C. Smuts. LL.D.—Dr. H. P. Veale.

STUDENTS. Full-time: total, 883, including 169 graduates. Pt.-time: total, 191, including — graduates.

DEGREES (1930). B.A., 30; B.Sc., 14; B.Sc. (Agric.), 20; B.Com., 6; B.A. (Admin.), 13; M.A., 4; M.Sc. (Agric.), 3; LL.B., 4; B.D., 2. Diplomas: Higher Education, 28; Lower Dipl. in Bantu Studies, 2; Domestic Science, 6; Commerce, 1; Public Administration, 2.

# UNIVERSITY OF STELLENBOSCH

CHANCELLOR-Prof. P. J. G. DE Vos, B.A., D.Litt. Vice-Chancellor-Prof. A. Moorrees, Litt.D., LL.D. PRESIDENT OF CONVOCATION—Rev. H. J. PIENAAR, B.A. CHAIRMAN OF SENATE—Prof. W. BLOMMAERT, Litt.D. Ghent. REGISTRAR-D. J. KRIEL, B.A. LIBRARIAN-G. V. MARAIS, M.A., B.Sc. Col.

PROFESSORS, LECTURERS, I	ETC.	
Agriculture, v. infra	Thomas, B. J. A.	Lectr.
Bantu [Lectr.	Dutch and Afrikaans	
Eiselen, W. M., M.A. Ph.D., Hamb.	Pienaar, E. C., Litt.D. Utr.	. B.A.
Engelbrecht, J. A., M.A., Ph.D.	(Dutch)	Prof.
Berl. Lectr.	Smith, J. J., B.A. (Afrikaan	ns)
Coertze, P. J., B.A. Temp. Lectr.		Prof.
Botany [Prof.	Malherbe, F. E. J., Litt.D.	
Nel, G. C., B.A., Ph.D. Berl.	M.A.	Prof.
Duthie, Miss A. V., M.A., D.Sc.	van der Horst, A. W., B.A.	. (Alfi-
S.A. Lectr.	. kaans) Sr. Uys, N. J., M.A.	Lectr.
Markötter, Miss E., M.Sc. Lectr.	Economics	20011.
Chemistry	Grosskopf, J. F. W., Dr. Jur.	Leid
van der Merwe, C. D., Ph.D. Halle, B.A. (Inorg. C.) Prof.	M.A.	Prof.
van der Riet, B. de St. J., Ph.D.	Botha, J. H., Comm.Dr. Ro	
Halle, M.A. (Organ. C.) Prof.		Lectr.
du Toit, D. F., D.Chem. Leid.,	Education	[Prof.
M.A. (Phys. C.) Prof.	Cillié, G. G., Ph.D. Stras.,	
Lecturers:	Cruse, H. P., Litt.D. Amst.	
Joubert, D. B., M.Sc., Ph.D., M.I.T.	(History of E Taute, B., B.A. (Method)	
Joubert, J. M., M.Sc., Ph.D.,	Strasheim, J. J., Ph.D. Lond	
M.I.T.	(Ped. Psych	
Classics	Donald, M. M., M.A.	Lectr.
van Braam, P., Litt.D. Utr., M.A. (Latin) Prof.	Hofmeyr, Miss J. I., B.A.	
(Latin) Prof. Edgar, C. S., B.A. Ox., M.A. Edin.	Hofmeyr, Miss A. S., B.A.	
(Greek) Prof.	of Ed. and Method)	
Basson, J., Ph.D. Berl., M.A. (Gk.	Stockenström, E. C., B.A. Neethling, Miss K. (Needle	
and Classical Philol.) Prof.	recenting, imas it. (recent	Lectr.
Lectr.	English	[Prof.
Commerce	Notcutt, H. C., B.A., Ph.D	. Lond.
Schumann, C. G. W., B.Sc., Comm.	Walpole, V., M.A. Sheff.	Lectr.
Dr. Rotterdam Prof.	Hurst, H. N., M.A. Ox.	Lectr.

van der Horst, A. W., B.A.	Physics
Sr. Lectr.	Morrison, J. T., M.A., B.Sc. Edin.,
French	D.Sc. Cape Prof.
Franken, J. L. M., Litt.D. Ghent, M.A. Prof.	Malherbe, W. E., B.Sc. Edin., B.A. Prof.
Geography	B.A. Prof. Cilliers, A. C., Ph.D. Frankfurt,
Serton, P., Litt.D. Utr. Prof.	M.Sc. Lectr.
Conradie, D. J., M.A. Lectr.	Harvey, S. C., B.A. Lectr.
Geology	Physiology
Shand, S. J., Ph.D. Münst., D.Sc.	Battaerd, P., M.D. Leiden Prof.
St. And. Prof.	Brink, H. E., M.Sc. Lectr.
Krige, A. V., D.Sc. Lectr.	Theology
German [Prof.	Malan, D. G., M.A., B.D. Princet.
Friedlaender, E., Ph.D. Stras. Hoge, J., Ph.D. Stras. Lectr.	Prof.
Germanic Philology [Prof.	van Rooyen, E. E., Th.D. Amst. Prof.
Bouman, A. C., Litt.D. Utr.	Lategan, D., M.A., B.D. Princet.
Hebrew	Prof.
du Plessis, J., D.Litt. Cape, B.A.,	Keet, B. B., Th.D. Amst., M.A.
D.D. Edin. Actg. Lectr.	Prof.
History	Zoology De Villiers, C. G. S., Ph.D. Zür.,
Blommaert, W., Litt.D. Ghent.	M.A. Prof.
Jan Marais Prof. le Roux, Miss M., B.A. (also Geog.)	Grobbelaar, C. S., Ph.D. Berl.,
Lectr.	M.A. Lectr.
Wiid, J. A., Ph.D. Mün., M.A.	A 14
(Hist. of S. Africa) Prof.	Agriculture
Thom, H.B., Phil.D. Temp. Lectr.	Agric. Chemistry Malherbe, I. de V., Ph.D. Mun.,
Law [Prof.	B.A. Prof.
Malherbe, W. M. R., LL.D. Leid. Steyn, I. v. Z., B.A., LL.D. Prof.	du Toit, M. S., B.A., Ph.D. Camb.
van Themaat, H. V. L., Dr. Jur.,	Lectr.
Dr. Jur. Pol. Leiden Lectr.	Agric. Economics
Beyers, A. B., B.A., LL.B.	Grosskopf, J. F. W., M.A., Jur. Dr. Leiden Prof.
Temp. Lectr.	van Wyk, S. P., M.A. Lectr.
Logic and Psychology [Prof. Wilcocks, R. W., Ph.D. Berl., B.A.	Agric. Engineering
Verwoerd, H. F., D.Phil., M.A.	Burt, M. C., B.A., B.Sc.Eng. S.A.
(Applied and Indust. Psyc.)	Lectr. and Hd. of Dept.
Prof.	Animal Husbandry
Mathematics	Reimers, J. H. W., Th. Agric. Eng.
Mackenzie, A. H., M.A. Aberd. and Camb. Prof.	Wageningen Prof.
	SWALL I Was A come
Stegmann, E. T., B.A., D.Sc. S.A.	Swart, J. C., M.Sc.Agric. Lectr. Rhodes, C. C. (Poultry Husb.)
Stegmann, E. T., B.A., D.Sc. S.A. Prof.	Rhodes, C. C. (Poultry Husb.)  Lectr.
Prof. Philosophy, Moral and Polit.	Rhodes, C. C. (Poultry Husb.)  Lectr.  Dairy Husbandry
Prof.	Rhodes, C. C. (Poultry Husb.) Lectr.

Plant Pathology Entomology Potgieter, J. T., Ph.D. Ohio, M.Sc. van der Byl, P. A., M.A., D.Sc. Prof. S.A. Joubert, C. J., M.Sc.Agric. Lectr. Verwoerd, L., D.Sc.Agric. Lectr. Pomology Field Husbandry Reinecke, O. S. H., B.S.A. Guelph, Marais, J. S., Ph.D. Ill., B.A. Prof. D.Sc. Agric. S.A. Sim, J. T. R., M.Sc. S.A., B.Sc. Ill. Black, M. W., M.Sc.Agric. Lectr. Lectr. Dippenaar, B. J., M.Sc. Agric. Lectr. Genetics [Prof. Neethling, J. H., M.Sc. Corn. Veterinary Science Dunning, F. J., F.R.C.V.S. de Villiers, P. J. R., M.Sc.Agric. Lectr. Lectr. and Hd. of Dept. Viticulture Home Economics Rabie, Miss A. A., B.Sc. Lectr. Theron, C. J., M.Sc.Agric. Jooste, Miss M. E., B.Sc. Lectr. Lectr.

#### GENERAL INFORMATION

For early history, see Yearbook for 1929, p. 512. The University was formally opened on April 2, 1918. By Act. No. 45, 1926, which came into force on October 1, 1926, the Faculty of Agric. (whilst remaining for academic purposes a faculty of the Univ.) was amalgamated with the Elsenburg School of Agric., situated in the division of Stellenbosch, to form the "Stellenbosch-Elsenburg College of Agric. of the Univ. of Stellenbosch." This closer co-operation with the Dept. of Agriculture aims at the better co-ordination of resources "for the promotion of agricultural science and the development of agriculture within the Union." In the main the scientific activities are centred at the University and the practical experimental and extension work at the Elsenburg Experiment Station (2600 acres). On the resignation of Dr. C. K. Brain (June 30, 1928), Dr. P. A. van der Byl was appointed Principal of the College of Agriculture.

The College of Agriculture is also in charge of the Cereal Experiment Station "Langgewens" (1150 acres) in the division of Malmesbury.

FACULTIES. Arts, Law, Education, Science, Theology, Agriculture, and Commerce.

Degree Courses. B.A. (3 yrs.), B.Sc. (3 yrs.), B.Comm. (3 yrs.), B.Sc. Home Econ. (4 yrs.), B.Sc.Agric. (4 yrs.); LL.B. (4 yrs. or combined with B.A., 5 yrs.); M.A., M.Sc., M.Sc.Agric., M.Comm. (r yr. post-grad.); B.Educ. (2 yrs. post-grad.); D.Sc., D.Phil., D.Litt., D.Comm. (2 yrs. after Master's degree); D.Sc.Agric. (r yr. after the M.Sc.Agric.); LL.D. (2 yrs. after LL.B.); B.D. (3 yrs. post-grad.); D.Ed. (3 yrs. teaching experience after B.Educ. and 1 yr. further study and research). Courses are also provided for the Secondary Teachers', Higher Primary, and Primary Certificates; also for certificates in Agric., Nature Study, Comm., Home Econ., and Social Work.

FEES. Registration, £2:5s. p.a. (incl. sports and fees payable to Students' Representative Council); Library, 5s. p.a. Tuition per semester for master's or bachelor's degree, £10 (B.D., £5); Doctorate, £5 p.a. Laboratory per semester, £5 (max.). Examns.: B.A., B.Sc., B.Comm., B.Educ., £10; for Master's degree, £5; Doctorate, £10; LL.B., £30; B.Sc.Agric., £20. Graduation, £2. Board and Residence, £44 p.a. to £54 p.a.

LIBRARY. 52,740 vols.

Special Equipment, Collections, etc. The Dept. of Botany possesses a botanic garden and three hothouses containing a large collection of the peculiar xerophytic flora of South Africa. The Dept. of Agricultural Chemistry has a building and equipment for manurial pot-experiments. The Dept. of Bantu Studies is building up a collection of specimens of native art and industry. Zoological and Geological Museums. Vivarium. For Pomology, Viticulture, see App. XXIV. B. IV.

Publications. The Calendar; The Stellenbosch Student (by Students' Repr. Council); Annals of the University of Stellenbosch (by Senate); Die Stellenbosse Oud-student (by Senate).

Scholarships for Graduates. Generally tenable for 3 years, and open to holders of M.A., M.Sc., M.Sc.Agric., B.Educ., M.Comm., B.D., and LL.B. (with B.A.): Porter, Croll, Queen Victoria, Grey, Donald Currie, Union (each £150 p.a.), Hiddingh and Ebden (£200 p.a.), Maynard (60 p.a.), H. B. Webb (£120 p.a.), Abe Bailey (£300 p.a.).

EXTENSION WORK. Public lectures by members of Staff at Stellenbosch and other places. Regular extension service under Dept. of Agric.

RESIDENCE. The John Murray House, affording residence for 350 men students, has been completed at a cost of £109,000. Altogether there are University hostels for 520 men and 190 women.

# THE YEARS 1930, 1931

 $N_{\rm EW}$  Buildings. New Administrative Buildings under construction (cost £18,000).

 $\ensuremath{\text{N}_{\text{EW}}}$  Posts. Chair in Commerce, Lectureship in Needlework, Lectureship in Drawing and Handicraft.

VISITS OF TEACHERS FROM OTHER UNIVS., ETC. (1930). Prof. Broman of Lund, Sweden; Prof. Pakstas of Latvia; Prof. Marnhardt, Hamburg; Mr. V. Hall of Kew Gardens; Dr. Hinträger, Berlin; Mr. Francis P. Miller, Chairman of the World Students' Christian Movement.

1931 (until June). Mr. F. S. Marvin; Mr. John Walter, Chairman of *The Times*, London; Dr. R. H. Fife, Visiting Carnegie Prof.

Honorary Degrees. D.Litt.—G. S. Preller (1930); and the following on June 24, 1931, on the occasion of the celebrations of the 50th Anniversary of the Victoria Coll., with which is incorporated the Univ. of Stellenbosch. D.Phil.—General the Rt. Hon J. C. Smuts. D.Litt.—Senator C. J. Langehoven. D.Ed.—Dr. D. F. Malan, Dr. N. Mansvelt, Senator F. S. Malan. D.Sc.—Dr. H. J. Van der Bijl. LL.D.—Jakob de Villiers, Chief Justice of the Union of South Africa. D.Sc.Agric.—Dr. P. J. du Toit.

STUDENTS, 1930. Full-time: total, 975, including 113 graduates. Part-time: total, 126, including 10 graduates. 1931 (till June): Full-time: total, 951, including 183 graduates. Part-time: total, 101, including 8 graduates.

Degrees. B.A., 112 (1930), 8 (June, 1931); M.A., 21 (1930), 8 (June, 1931); D.Litt., 1 (1930); D.Phil., 4 (1930); B.Sc., 22 (1930), 1 (June, 1931); M.Sc., 7 (1930), 2 (June, 1931); D.Sc., 4 (1930); B.Educ., 11 (1930), 3 (June, 1931); B.Sc.Agric., 31 (1930), 10 (June, 1931); M.Sc.Agric., 4 (1930), 3 (June, 1931); LL.B., 4 (1930), 1 (June, 1931); LL.D., 1 (1930); B.Comm., 14 (1930), 5 (June, 1931); D.Comm., 1 (1930); B.D., 1 (1930), 1 (June, 1931).

# UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG, TRANSVAAL

Telegraphic address-University, Johannesburg.

CHANCELLOR-H.R.H. PRINCE ARTHUR OF CONNAUGHT.

VICE-CHANCELLOR-H. J. HOFMEYR, B.A.

CHAIRMAN OF COUNCIL—Sir WM. DALRYMPLE, K.B.E.

PRINCIPAL—H. R. RAIKES, A.F.C., M.A.

President of Convocation—T. A. Lawrie, B.Com.

SECRETARY OF SENATE—Prof. R. B. Young, M.A., D.Sc.

REGISTRAR—H. W. J. VAN DER BRUGGE, M.A., LL.B., J.P.

Assistant-Registrar—I. Glyn Thomas, B.A.

LIBRARIAN-P. FREER, B.A., F.L.A.

#### PROFESSORS, LECTURERS, ETC.

Actuarial Science, v. Maths.

Afrikaans, Nederlands and German

Krige, J. D. A., Ph.D. Ghent, M.A. Cape Prof.

Le Roux, J. J., B.A. Cape, Litt. and Ph.D. Utr. Sr. Lectr. Coetzee, A. J., B.A. Jr. Lectr.

Anatomy

Dart, R. A., M.Sc. Queensland, M.D., Ch.M. Syd. Prof.

Shore, L. R., M.A., M.B., Ch.B. Camb., M.R.C.P. Lond., D.P.H. Camb. Sr. Lectr. Macgregor, A. L., M.B., Ch.M.

Edin., F.R.C.S. Eng. (Clin. A.) Lectr.

Gillman, J., B.Sc.
Temporary Ir. Lect

Temporary Jr. Lectr. 1 Lab. Asst.

Architecture and Quantity Surveying

Pearse, G. E., A.R.I.B.A. Prof. Martienesen, R. D., B.Arch., A.R.I.B.A. Temp. Lectr. Lecturers (Part-time):

Armstrong, F. W., A.Ř.C.A. Bell-John, H., M.C., L.R.I.B.A. (Quantity Surveying).

Gardiner, K. E. F., A.R.I.B.A.

Bantu Studies

Doke, C. M., M.A. S.A., Diploma Compar. Bantu, Lond., D.Litt. Prof.

Hoernlé, Mrs. A. W., B.A. Cape (Social Anthropol.) Lectr.

Bryant, Rev. Father A. T.
Research Fellow.

Lecturers (Part-time):

Jones, J. D. R. (Native Law and Admin.).

Ellenberger, R., B. ès L. Paris, O.I.P. (Sotho).

Pienaar, P. de V., M.A., Ph.D. Hamb. (Phonetics).

Botany

Phillips, J. F. V., D.Sc. Edin. Prof. Moss, Mrs. M., M.A. Wellesley. Sr. Lectr.

20

Engineering, Civil Young, Miss E. M., M.Sc. S.A., Sutton, W. G., B.A., B.Sc. Eng. Ph.D. Wisc. Lectr. Prof. Weintroub, Miss D., M.Sc. Cape Clark, A. D., B.Sc. Lond. Lectr. Tr. Lectr. Chemistry and Chem. Engineer-Engineering, Electrical ing Randall, O. R., B.Sc. Lond., Ph.D. Wilkinson, J. A., M.A. Camb., Birm., M.I.E.E. City Prof. M.I.Chem.E. Prof. Goldsmith, A., B.A. Cape, B.Sc. Robertson, J. B., M.A., B.Sc., Sr. Lectr. Eng. Ph.D. Edin., F.I.C. Sr. Lectr. Allan, J. T., B.Sc. (Eng.) Glas. Krige, G. J. R., M.Sc. Stell., Ph.D. Jr. Lectr. Lectr. Gött. Engineering, Mechanical Segal, B., M.Sc. Eng. Tr. Lectr. Walker, W. J., D.Sc. Eng., Ph.D. I Lab. Asst. De Beers Prof. St. And. Jensen, A. E., B.Sc. Lond. and Chemistry, Organic Prof. Sr. Lectr. S.A. Stephen, H., O.B.E., D.Sc. Manc. Gimkey, F., M.Sc. Eng. Sr. Lectr. Backeberg, O. G., B.A. Ox., M.Sc., Drysdale, J. A.I.C. Lectr. 2 Instrs. Classics English Haarhoff, T. J., B.A. Cape, B.Litt. Greig, J. Y. T., M.A., D.Litt. Ox., Litt.D. Amst. Prof. Prof. Williams, Miss M. V., M.A. Camb., Lawrie, J. G., M.A. S.A., D.Litt. B.A. Cape Sr. Lectr. Sr. Lectr. Wagner, A. I., B.A. Ox. and Cape, French and Romance LL.B. S.A. and Lond. Maingard, L. F., M.A., D.Lit. Sr. Lectr. Lond., L. en D. Paris. Prof. Acheson, G. J., M.A. Ox. Lectr. Papenfus, Miss E. M., B.A., Ph.D. Commerce Lond. Lectr. Richards, C. S., M.Com. Durh. Geography Prof. Wellington, J. H., B.A. Lond., Lecturers: M.A. Camb. Prof. Barnes, W. J., C.A. S.A. (Income Jackson, S. P., B.A. Jr. Lectr. Tax). Dreyer, J. H., B.Com., C.A. S.A. Geology Young, R. B., M.A. Glas., D.Sc. Harkness, A. (Banking). Edin. Prof. Mockford, H. C., C.A. S.A. (Audit-Janisch, Edna P., M.Sc. Lectr. ing, Company Liquid'n.). Mendelssohn, E., M.Sc. Lectr. Economics and Econ. Hist., v. German, v. Afrikaans also Hist. Frankel, S. H., Ph.D. Lond., M.A. HebrewProf. Landau, J. L., Ph.D. Vien., M.A. Pollak, H. P., B.A. Pt.-time Lectr. Cape Prof. Jones, W. Patrick History (Public Finance) Hon. Lectr. Macmillan, W. M., M.A. Ox. Prof. Hodgson, Miss V. M. L., B.A. Cape, Education Prof. Macgregor, W. R., M.A. Aberd. M.A. Ox.Sr. Lectr. van der Merwe, P. J., M.A. Hope, A. A., B.A., B.C.L. Ox. Asst. (pt.-time). Lectr. (pt.-time).

Law, v. also Bantu Studies [Prof. Philosophy McKerron, R. G., M.A. Aberd., Hoernlé, R. F. A., M.A., B.Sc. Ox. B.A., B.C.L. Ox. Prof. MacCrone, I. D., M.A. Cape, Murray, J. C. (Merc. Law) Prof. B.A. Ox. Sr. Lectr. Murray, A. H., M.A. Stell., B.Litt., Assts. (Pt.-time): Ph.D. Ox. Tr. Lectr. Bernstein, B. L., B.A., LL.B. Coaker, N. E., M.A., LL.B. S.A. **Physics** Paine, H. H., M.A. Camb., B.Sc. Hope, A. A., B A., B.C.L. Ox. Lond. and Wales Rissik, H., B.A. Cape, M.A., Evans, G. T. R., B.Sc. Wales B.C.L. Ox. Sr. Lectr. Pollak, W., LL.B. Camb., S.J.D. Cooper, M. A., M.Sc. S.A. Lectr. Harv., M.A. Halliday, E. C., M.Sc. Cape T. Lourie, A., B.A., LL.B. Lectr. Mathematics and Actuarial Norris, H. W. Lecture Asst. Science [Prof. Physiology Dalton, J. P., M.A., D.Sc. St. And. Stammers, A. D., M.A. Camb., Constançon, C., Dip. Ing. Zür. D.Sc. S.A. Otto Beit Prof. Sr. Lectr. Osborn, T. W. B., M.Sc. Wood, H. E., M.Sc. Manc., Union Mellé, B. G., B.A. Cape, M.A., Astronomer, B.M., B.Ch. Ox., F.R.C.S. Lectr. in Astron. pt.-time. (Clin. P.) Lectr. Edin. Kerrich, J. E., M.Sc., Dip.Act. 2 Pt.-time Demrs., I Lab. Asst. Math. Edin. Lectr. Zoology Young, F., B.A. Lectr. Fantham, H. B., M.A. Camb., Maths., Applied [Prof. D.Sc. Lond. Le May, H., M.A., B.Sc. Glas. van der Horst, C. J., D.Sc. Sr. Lectr. Bleksley, A. E. H., M.Sc. Stell. Amster. Paterson, Miss N. F., Ph.D. Camb., Ir. Lectr. M.Sc. Metallurgy and Assaying Schuurman, Miss J. F. M., M.Sc. Stanley, G. H., M.Sc. Lectr. A.R.S.M., F.I.C., M.I.M.E., M.I.M.M.Prof. Medicine Millin, D., B.A. Cape, F.I.C. (for subjects of first 2 yrs.-Sr. Lectr. Anat., etc., v. supra) Davidson, A. C., B.Sc.Tech. Manc. Anæsthetics [Lectr. Jr. Lectr. Mudd, F. B., M.R.C.S., L.R.C.P. Mining and Surveying Hon. Demrs.: De Beers Prof. Weinbren, B., M.B., Ch.B. Edin. Hoffenberg, S. N., B.Sc. Cape, Crawford, D., B.A. Camb., M.Sc. (Eng.) Sr. Lectr. M.R.C.S., L.R.C.P. MusicFisher, M., M.B., Ch.B. Liv. Kirby, P. R., M.A. Aberd.. Bornman, S. M. F.R.C.M. Prof. Applied Anatomy and Operative Lecturers (Pt.-time): Surg.

Duggan, C. A. O.

8 Instrs. (pt.-time).

Paff, W., A.R.C.M., L.R.A.M.

Beyers, C. F., B.A. Cape, M.B.,

Lectr., Demr. in Op. Surg.

M.S. Lond., F.R.C.S.

Sr. Clin. Lecturers: Dermatology Gluckman, I., M.R.C.S., L.R.C.P. Girdwood, R. L., M.D., Ch.B. Edin. Lectr. Bloom, A., M.B., Ch.B. Edin., Diseases of Children D.P.H. Baumann, E. P., M.D., Ch.B. Braun, L. I., M.D. Lond., M.R.C.P. Edin., M.R.C.S., L.R.C.P. Clin. Lecturers: Lectr. Balkin, I. J., M.B., Ch.B. Edin. Mellé, B. G., B.A. Cape, M.A., Block, I. J., M.B., Ch.B., F.R.C.S. B.M., B.Ch. Ox., F.R.C.S. Edin., F.R.C.P.S. Glas. Edin. Hon. Asst. Lectr. Heimann, H. L., B.A. Cape, M.D., Heymann, S. C., M.B., B.Ch. B.S. Lond., M.R.C.P. Hon. Clin. Tutor. Gordon, Mary, M.B., B.S. Durh. Peacock, G. E., M.R.C.S. Eng., Diseases of Children, Surgical L.R.C.P. Lond. Ross, R. A., M.B., Ch.B. Edin., De Waal, J. J., M.R.C.P., D.P.H., F.R.C.S. Lectr. D.T.H. Clin. Tutor. Macgregor, A. Lee, M.B., Ch.M. Edin., F.R.C.S. Obstetrics and Gynæcology [Prof. Hon. Asst. Lectr. Grant, W. Gordon, M.D. Aberd. Tucker, M. K., M.B., Ch.B. Cape Sr. Clin. Lecturers: Hon. Clin. Tutor. Te Water, F. K., M.B., Ch.B., Ear, Nose, and Throat, Dis. of F.R.C.S. Edin., M.R.C.S., Pink, W. L., M.B., B.S. Lond., L.R.C.P. F.R.C.S. Lectr. Maxwell, W. H., M.A., M.B. Camb., Hon. Asst. Lecturers: M.R.C.S., L.R.C.P. Campbell, A., M.B., Ch.B., D.P.H., Clin. Lecturers: F.R.C.P., F.R.C.S. Edin., Schabort, I. P., M.D. Heid. R.F.P.S. Glas. Black, Jas., M.D., Ch.B. Edin. Andrew, T. F., M.C., M.B., Ch.B. Don, Jean D., M.D., Ch.B. Edin., F.R.C.S. Edin. D.P.H. Edin., L.M. Dub. 2 Tutors. Eye, Diseases of the Brinton, A. G., F.R.C.S. Edin., Orthopædics M.R.C.S., L.R.C.P. Lectr. Fouché, F. P., M.D., Ch.B. Edin., Hon. Asst. Lecturers: F.R.C.S. Hon. Lectr. Meyer, R. C. J., B.A. Cape, M.D., Pathology and Bacteriology F.R.C.S. Edin., D.O. Ox. Lister, Sir Spencer, M.R.C.S., Robinson, F. H., M.B., Ch.B. L.R.C.P., LL.D. Cape Camb., M.R.C.S. Hon. Prof. Strachan, A. S., M.A., B.Sc., M.D., Forensic Medicine Ch.B. Glas. (Pathol.) Levin, J. J., M.B., Ch.B. Edin. Hd. of Dept. & Lectr. Prof. Becker, J. G., M.B., Ch.B. Glas., Infectious Diseases D.P.H., D.T.M. Liv. Loeser, H. A., M.D. Zür. Lectr. (Bacteriol.) Sr. Lectr. Medical Ethics Annie, D.Sc. Porter. Lond., Heberden, W. S., M.R.C.S., F.R.S.S.A., F.L.S. L.R.C.P. Lectr. (Parasitol.) Sr. Lectr. Medicine Pharmacology [Prof. Prof. Watt, J. M., M.B., Ch.B. Edin. . . . . . .

Instr.

Lectr.

Prof.

Hon. Lectr.

Hon. Lectr.

Edin,

Lectr.

M.R.C.S.,

Hon. Lectr.

Camb.,

H.,

Dentistry

Stephen, Florence V., M.Sc. Vict., Brayshaw, H. C., M.B., Ch.B. M.B., Ch.B. Manc., M.R.C.S., Edin., F.R.C.S. Eng. and L.R.C.P. Ir. Lectr. Edin. I Lab. Asst. Vaccination Physio-Therapy Porter, C., M.D., B.Ch., R.U.I., Woolf, E. B., M.R.C.S., L.R.C.P. D.P.H. Hon. Lectr. M.R.C.S. Psychiatry and Mental Hygiene Venereal Diseases Dunston, J. T., M.D., B.S. Lond. Gluckmann, Hon. Prof. L.R.C.P. Truter, F. C., M.B., Ch.B. Edin. Clin. Lectr. Russell, W., M.D., Ch.B. Edin. Hon. Clin. Lectr. Public Health Shaw, J. C. M., M.A., B.Dent.Sc., Hon. Prof. D.D.S. [Lectr. Radiology Anæsthetics, General Steuart, W., M.R.C.S., L.R.C.P. Mudd, F. B., M.R.C.S., L.R.C.P. J., M.D. Edin., Olivier, P. D.M.R.E. Camb. Anæsthetics, Oral Foote, H. J., M.B., B.Ch., L.D.S. Hon. Asst. Lectr. Edin. Surgery Brebner, I. W., M.A., M.B., Ch.B., D. Dis. of Children F.R.C.S. Edin. Prof. Cassel, D., B.A. Cape, D.D.S. Sr. Clin. Lecturers: Mich. Beyers, C. F., B.A. Cape, M.B., M.S. Lond., F.R.C.S. Levin, J. J., M.B., Ch.B. Edin. Welchman. W., M.B., B.S. Lond., F.R.C.S. Eng. Clin. Lecturers: Dauth, D. J., M.D., Ch.B. Edin. Greenberg, M., M.B., Ch.B., F.R.C.S. Edin.

Urology

Maisels, I., M.B., Ch.B. Edin.,

Hon. Sr. Lectr.

F.R.C.S. Edin.

Orthodontia Braun, M. F., L.D.S., R.C.S. Eng., Lectr. D.D.S. Penn. Prosthetics Berry, T. B., L.D.S., R.C.S. Eng., B.Sc.Eng. Cape Lectr. D. Radiology Hossack, F. A., L.D.S., R.F.P.S. Douglas, J. A., M.D., Ch.B. Edin., Lectr. Glas. F.R.C.S. Edin. Pocock, W. A., M.B., B.Ch. Camb., Operative D. Surgery Hunter, B. Mitchell, L.D.S., R.C.S. F.R.C.S. Eng., L.R.C.P. Lond. Edin., D.D.S. Penn. Lectr. Fouché, J. C., M.B., M.Ch. Dub., F.R.C.S. Eng. Clin. Tutor. D. Pathology and Histo.-Path. Tropical Medicine Friel, G., B.A. Dub., L.D.S. Irel. Orenstein, A. J., C.M.G., M.D. Lectr. Jeff., M.R.C.S., L.R.C.P., Oral and Gen. Surg. Chev. de l'O. de la Couronne, Welchman, W., M.B., B.S. Lond., Lectr. Belg. F.R.C.S. Eng. Lectr.

Oval and Gen. Med.

D.P.H.

Bloom, A., M.C., Ch.B.

Associated Institutions. There are several hospitals as well as an Instn. for Med. Research in which students of Med. carry out a part of their curriculum.

#### GENERAL INFORMATION

For early history, see Yearbook for 1929, p. 518. In 1921 University College, Johannesburg, was reincorporated as the University of Witwatersrand, Johannesburg, with effect from March 1, 1922. This development was made possible partly by support from the public, including contributions by the Chamber of Mines (£50,000), Standard Bank of S.A., Nat. Bank of S.A., Central Mining and Investment Corporation, and De Beers Cons. Mines, Ltd. (£10,000 each), Sir Otto Beit (£8000), and many others, amounting in all, up to the end of 1922, to over £220,000. The Municipality provided a fine site (100 acres) at Milner Park, a mile from the centre of the town. Expenditure on buildings and lay-out up to Dec. 1930 amounted to £652,000 Libraries: Central, and several departmental. Museums: Several departmental.

FACULTIES: Arts, Sc., Med., Engin., Comm., Law, Dentistry.

Degrees. B.A., B.Sc. or B.Mus., 3 yrs., Hons. 1 yr.; M.A. or M.Sc., 1 yr. after Hons. and Thesis; D.Litt., D.Phil., LL.D., or D.Sc., Thesis; B.Ed., 2 yrs. (post-grad.); M.Ed., Thesis; B.Com. 4 yrs.; M.Com., Exam. and Thesis; B.Sc. (Eng.), 4 yrs.; M.Sc. (Eng.), Thesis; B.Arch., 5 yrs.; M.Arch., Thesis; LL.B., 3 yrs. (post-grad.); LL.M., Thesis; M.B., Ch.B., 6 yrs.; M.D. or M.S., Thesis and Examn.; B.D.S., 5 yrs.; D.D.S., Thesis. An alternative course for the B.Sc. in Mining and Metallurgy provides for employment in the mines of students in their 4th year.

DIPLOMAS. Classics, French, Afrikaans, German, Economics, Geography, Philosophy, Archit., Music, Bantu Studies, Public Health, Tropical Medicine and Hygiene, Psychological Medicine, Actuarial Maths., Quantity Surveying. Courses for Teachers' Certifs., Law Certif., Civil Service Law examn., Land Surv. Fees from 12 gs. p.a. (Civil Service Law) to £35 (M.B.).

Scholarships open to Graduates: Chamber of Mines, £250; Union, 2 of £150 each for 3 yrs.; Ainsworth (Mod. Hist.) every 2 yrs., £150 p.a. for 2 yrs.; H. B. Webb Research Gift, £200; Adolph Wagner (Engin.), £150.

RESIDENCE. Hostels for 160 men and 50 women. Fees, £65 p.a.

UNIV. EXTENSION. Public lectures under joint auspices of Univ. and W.E.A. Discussion circles; afternoon and evening courses for teachers and others in regular employment, who may by attending them qualify for B.A. degree.

Publications. Calendar; Bantu Studies; Umpa (S.R.C.).

# THE YEAR 1931

Benefactions. Union Government, £86,300 for current expenditure, £1135 for post-graduate scholarships, £250 for bursaries; Johannesburg Municipality, £1000 for general purposes, £6000 for bursaries and scholarships; other Witwatersrand Municipalities, £100 for general purposes, £733 for bursaries; Witwatersrand Council of Education, £1000 for bursaries, £86 for general purposes; Witwatersrand Univ. Committee (from public subscriptions), £13,000; the late Sir Otto Beit, £10,000.

DEATH. Prof. C. E. Moss (Botany), in 1930.

RESIGNATIONS AND RETIREMENTS. C. Porter, Prof. of Public Health;

G. A. Watermeyer, Prof. of Mining and Surveying; O. K. Williamson, Prof. of Medicine.

Honorary Degrees. M.A.—J. D. Rheinallt Jones. LL.D.—F. R. Napier, M.B., B.S. Lond., M.R.C.P. Eng., F.R.C.S. Eng.; A. J. Orenstein, M.D. Jefferson, M.R.C.S. Eng., L.R.C.P. Lond.; G. Ritchie Thomson, C.M.G., M.B., C.M. Edin., F.R.S.E.

Students. Full-time: total, 1381, including 80 graduates. Part-time: total, 290, including 8 graduates.

Degrees. D.Litt., r; M.A., 5; B.A., 94; B.A. (Hons.), 16; B.Mus., r; D.Sc., r; M.Sc., 3; B.Sc., 23; B.Sc. (Hons.), 4; M.D., r; M.B., Ch.B., 18; M.Sc. (Engin.), 7; B.Sc. (Engin.), 29; M.Com., r; B.Com., 19; B.Econ., r; Ll.B., r4; B.D.S., r; Diplomas, r5.

# COLLEGE OF AGRICULTURE, MAURITIUS

PRINCIPAL AND CHAIRMAN OF ADVISORY BOARD—A. GLENDON HILL, B.A., B.A. (Agr.), A.R.C.Sc.I.

REGISTRAR-M. KOENIG, A.Inst.P.

#### LECTURERS

Agronomy—The Principal and 2 others.

Biology and Entomology—Moutia, A., and 2 others.

Botany and Mycology—Shepherd, E. F. S., B.S.A. McG.

Chemistry—Lincoln, R., M.A. Camb.: Berchon, F.

Physics-The Registrar.

Surveying and Agric. Engineering
—Avice, R., A.R.T.C

Also Lecturers in Animal Husbandry, Book-keeping, Sugar Technology, and Veterinary Science.

#### GENERAL INFORMATION

The College is administered as an integral part of the Department of Agriculture of the Colony. The cost of the building (opened Jan. 1925) and equipment was £14,000. Experimental fields and farms cover 60 acres. Laboratories provide accommodation for research in Chemistry, Entomology, Botany, Mycology, Physics, and Sugar Technology. Athletic grounds are attached to the College.

A two years' course leads to the Diploma of the College. Short courses in the inter-crop period are provided for estate employees and special courses for agricultural and sugar-house chemists. The example of the City and Guilds of

London Institute in sugar technology are held at the College.

The College year begins in April.

Minimum age for admission, 18. Entrance Examn. in English, French, Chemistry, and Maths. Holders of Matric. certificate of any British University are excused those subjects which appear on their matric. certificate.

Tuition fee for British subjects not natives of Mauritius, £20 p.a.

#### THE YEAR 1930-31

DEATH. D. d'Emmerez de Charmoy, Principal, Nov. 1930.

STUDENTS. Full-time, 10. Part-time, 2.

DIPLOMAS awarded (in Agric.), 4.

#### UNIVERSITY OF MALTA

VISITOR-H.E. THE GOVERNOR OF MALTA.

RECTOR AND CHAIRMAN OF THE COUNCILS—Prof. T. AGIUS, M.A., M.D., F.R.Met.S.

SECRETARY-GEO. GRIMA.

#### PROFESSORS, LECTURERS, ETC.

Anatomy and Histology Busuttil, R., M.A., M.D. Prof. Vella, Salv. L., B.Sc., M.D., D.L.O. Asst. Prof. (Eng.)

Biology, v. Nat. Hist.

Chemistry

Sultana, A., M.D. Prof.

Engineering and Architecture Galea, Hon. R. V. (also Lectr. in

Pract. Geom. and Mensuration) Prof.

English Literature and History Fogarty, Owen J., B.A. N.U.I., M.R.S.T. Prof.

[Demr. Experimental Sciences Manchè, Jos. A., B.Sc., M.D.

Italian Literature

Laurenza, V., D.Lit. Naples Prof. Latin Literature

LawGalea, Very Rev. Can. E., B.Lit., D.D., J.C.D. Rome (Canon

Prof. Mallia, C., B. Litt., LL.D. (Comml.

L.) Prof. Vassallo, E. C., M.A., LL.D. (Const. and Internat. L.) Prof.

Caruana, V., B.Lit., LL.D. (Civil Prof. LL.D. Randon, L. A., B.A.,

(Crim. & Science of L.) Prof. Bartolo, Hon. Sir A., B. Litt., LL.D.,

F.R.Hist.S. (Hist. of Legisln. in England and Malta) Prof. Frendo, P. G., LL.D. (Fiscal Laws, Statistics and Admn.) Mathematics, Mechanics, Pract. Engin.

Nixon, W. F., B.Sc Lond., A.R.C.S. Lond., Wh. Exhr. Mechanics, Applied, and De-

scriptive Geometry

Prof. Gatt, J. L. Medicine and Surgery, v. infra Natural History

Borg, John, M.A., M.D. Prof. Philosophy

Cuschieri, Very Rev. A., Ph.D., D.D., O.C. Prof.

Physics Prof. Borg, S., M.D. Physiology

Xuereb, P., B.Sc., M.D. Prof. Political Economy

Cortis, G., B.Litt., LL.D. Prof. Theology

Formosa, Most Rev. Can. Mgr. G., B.A., D.D., J.U.D. Rome (Dogm. T.) Prof.

Zammit, Most Rev. Can. Mgr. C., (Moral T.) Prof. D.D.

(Holy Script, and Hebrew) Prof

#### Medicine

(for subjects of first 2 yrs.-Anat., etc., v. supra)

Anæsthetics

Casolani, R. L., M.D. Demr.

Prof.

Bacteriology, Parasitol., andPathol. Vincenti, R., M.D. Prof. Azzopardi, J., M.D. Asst. Prof. Forensic M. and Toxicology Hyzler, J., B.Sc., M.D. Prof. Hygiene and Preventive M. Bernard, A. V., O.B.E., M.D., D.P.H. Liv. Materia M., Pharmacol., and Therab. Cassar, I., M.D. Prof. MedicineFerro, E. H., B.A., M.D. Prof. Debono, J. E., B.Sc., M.D. Asst. Prof.

Mental Diseases Toledo, R. M., M.A., M.D. Prof. Midwifery and Gynæcology Ellul, Jos., B.Sc., M.D. Prof. Cesareo, John A., M.D. Asst. Prof. Ophthalmology Preziosi, Cont. L., B.Sc., M.D., D.O. Ox. Prof. Pathology, v. Bacteriol. and Pathol. Surgery Debono, P. P., M.D., D.P.H. Camb., F.R.C.S. Eng.

Camilleri, V. T., M.D. Asst. Prof.

Curmi, V. M., M.D. Naples Lectr.

Venereol. and Dermatol.

#### GENERAL INFORMATION

Founded in 1769 by Grand-Master Fra Emmanuel Pinto de Fonçeca of the Order of St John under the authority of Pope Clement XIV., the University is lodged in a building erected by the Jesuit Fathers in 1591–93 for a College, whilst its Medical Faculty originated in a School of Anatomy founded in 1674 by Grand-Master Nicola Cottoner in the Great Hospital of the Order, which accommodated 745 patients. The authorities of the University as reconstituted by a Govt. Statute of 1921 are the Visitor, the Rector, the General Council (consisting of the Rector, six Professors, and three members elected by Convocation), six Faculty Councils, and Convocation.

LIBRARY, 5000 vols. A public library maintained in connexion with the Univ. contains over roo,000 vols. and is rich in MSS. and rare editions of great historical interest. MUSEUMS: Nat. Hist. and Archæol. OBSERVATORY, full meteorol. equipment and seismograph. BOTANICAL GARDEN. HOSPITALS, available for Clinics: general (300 beds) and several special; Leper Asylum (100); lunatic (800); aged poor (800).

FACULTIES: Literature, Science, Engineering and Architecture, Theology, Law. Medicine.

MATRICULATION involves passing an examn. in 5 subjects, including English, Italian, Maths., and, except for the course of Architecture and Engineering, Latin.

DEGREES, ETC. B.A., B.Sc., B.E. and A., M.D., LI.D., D.D., B.L. Can. Diplomas of Notary Public, Legal Procurator, Pharmacist and Apothecary, Dental Surgeon, Midwife.

SCHOLARSHIPS FOR GRADUATES. £120, one each in Theol., Law, Engin., and Med. (Travelling Scholps.). £50, one each in Theol., Law, Med. One of £120 awarded every 6 years in the faculty of Med.

Publication. Calendar (Oct.).

# THE YEAR 1930-31

STUDENTS. Full-time: total, 163, including 16 graduates. Part-time: total, 37.

Degrees. Nil.

#### THE UNIVERSITIES OF INDIA

Universities were first established in British India as a result of the great parliamentary inquiry into the condition of India which preceded the confirmation of the Company's Charter in 1853. It was resolved to create a properly articulated system of education from the Primary School to the Univ. The London Univ., at that time a purely examining body, which admitted to its tests only the students trained in affiliated institutions—the latest device of educational statesmanship was taken as a model. "It had been suggested, in London, by conditions which resembled those of Bengal. . . . Its defects were not yet apparent, though it was to be profoundly modified by London itself four years later. It had the advantage of costing very little. enabled all the existing collegiate institutions, whether Government or missionary, to be worked into the same scheme, and promised to provide a quite impartial mode of testing the qualifications of students for Government service. Above all, it gave freedom to the non-Government Colleges-all, at that date, mission colleges-to carry on their work in their own way, and offered them help from public funds for the secular side of their work" (Report of the Calcutta Univ. Commission, 1917-19). In pursuance of this policy, Univs. were founded in 1857 at Calcutta, Bombay, and Madras. The framers of the policy, while contemplating that the ordinary subjects of study should be dealt with by the Colleges, did not intend that the Univs. should have no teaching functions, but in point of fact they have until recently concerned themselves solely with examinations. In 1882 and 1887 the Univs. of the Panjab and Allahabad were established on similar lines. A Commission was appointed in 1902 to examine the working of the system, and the Univs. Act of 1904 was designed to give effect to its recommendations as to reorganization of the government of the Univs., their assumption of teaching functions, and more effective supervision by them of the Colleges, as well as more exacting conditions of affiliation. Univ. Professorships, Readerships, and Lectureships have accordingly been constituted in the above-named Univs., but mainly for advanced (post-graduate) courses and, except in Calcutta, only on a very small Benares (Hindu), Mysore, and Patna Univs. were established in 1916 and 1917. The Osmania Univ., Hyderabad, Deccan, was also established in 1917, though actual tuition began in Aug. 1919.

The foundation, structure, aims and efficiency in working of institutions for higher education in India have been subjected to exhaustive re-examination by the Calcutta Univ. Commission, 1917–19. In the Univ. of Calcutta itself but little progress has been made towards giving effect to the far-reaching and fundamental changes recommended by this body, but their recommendations have to a great extent determined the lines on which were established in 1920 and the two following years the unitary, teaching, and residential Univs. of Aligarh, Dacca, Delhi, Lucknow, Rangoon, and on which the Univ. of

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Allahabad was reorganized in 1921. The Nagpur Univ. was established by legislation in 1923, and in the same year the Univ. of Madras was reorganized on lines somewhat similar to those of the Univ. of Allahabad. Recently the constitution of the Rangoon Univ. has been somewhat altered by an Act of the provincial legislature. In 1926 Acts of the United Provinces and Madras Legislative Councils provided for the establishment of affiliating Universities at Agra and at Bezwada (the Andhra University). These Univs. are now established; and the headquarters of Andhra Univ. have been moved to Vizagapatam. Bombay Univ. was reorganized in 1928, and the new Act came into force in 1929. The report of the Bombay Univ. Reform Committee (published 1925) recommends the establishment of a Univ. at Poona. addition to the universities of India is the Annamalai University of Annamalainagar in Southern India, established by an Act of the Madras legislature, and made possible by the princely generosity of the Hon. Raja Sir Annamalai Chettiar.

Constitution. (a) The Univs. of Calcutta and the Panjab are still governed by the constitution framed under the Act of 1904. The Univ. of Bombay is governed by Act IV. of 1928. The Senate, comprising the (official) Chancellor, the Vice-Chancellor, and Fellows, constitute the Body Corporate of the Univ., the executive government being vested in a Syndicate of from 9 to 19 members, including the Vice-Chancellor and Director(s) of Public Instruction, and members (largely College teachers) elected by the Senate or the Faculties. The constitution and abolition of Faculties rests with the Senate. The Academic Council recently instituted by the Panjab Univ. has been invested with important powers subject to the general control of the Senate; the revision of the Constitution of the Senate and the Syndicate is at present engaging the attention of the governing authorities. In its application to Calcutta the Act of 1904 is modified by Act VII. of 1921.

(b) The new Univs. have a constitution modelled generally on that recommended for Calcutta by the Calcutta Univ. Commission: (1) A large body called the Court, on which are represented the chief interests of the community either by election or by nomination, and including a number of ex-officio members, makes statutes and makes recommendations on the financial accounts and the annual report submitted by the Executive Council; (2) the Executive Council of some 15-20 members, elected partly by the Court, partly by the Academic Council, and including ex-officio members, is the executive authority in regard to finance and University appointments, and exercises all residual powers; (3) the Academic Council, which consists almost entirely of University teachers, is responsible for the regulation and maintenance of standards of education and examination within the Univ., and for the initiation of all changes in academic matters. executive officers of the new Univs. are, as under the older constitution. the Chancellor, the Vice-Chancellor, and the Registrar, but the Governor-General is now introduced as the Visitor or Lord Rector, with powers of inspection. At Rangoon the three constituent bodies above mentioned are named (1) Council, (2) Executive Committee, and (3) Senate.

Admission to the Universities. Most of the Indian Univs. admit students who have passed the Final Examn. of the High Schools, and 4 years are spent at a College affiliated to the Univ. before the student is qualified to sit for the Bachelor's Degree Examn., namely, 2 years before the Intermediate Examn. and 2 after. The Univs. of Allahabad, Aligarh, Dacca, Lucknow, and Agra regard the pre-Intermediate years not as part of, but as preliminary to, University study.

Applications for AFFILIATION are submitted by the Syndicate, if satisfied as to the managing agency, teaching staff, provision for residence of students, equipment, financial resources, suitability of fees, etc.; to Government. If granted, the courses in respect of which the College is affiliated are specified. Affiliated Colleges must comply with requisitions by the Syndicate for information, submit themselves to inspection under the Syndicate's orders, and take such action as may be ordered consequent upon such inspections. In Calcutta and Panjab Univs. affiliation questions are dealt with by the Senate.

Terms. Univ. examns. are, with few exceptions, held between March and June. Admissions are made as a rule in June or July, though in many cases regular work does not commence till Sept. or Oct.

Degree Courses. In Arts and Science a 2 yrs.' course leading to an Intermediate examn. is followed by a further 2 yrs.' course for the Degree. English is a compulsory subject, except in the B.A. course at Lucknow and in the B.Sc. course of Lucknow, Allahabad, Bombay, Calcutta, and Patna. All., Lucknow, Madras, and Panjab Univs. give Honours degrees (All. in Science, Lucknow, Madras, and Panjab in Arts and in Science) requiring an additional year of study. The Intermed. Courses are under the control of the Univs. except at Dacca, Allahabad, Agra, and Lucknow, where they are controlled by Boards of Intermed. Educn.

Commerce. The B.Com. course covers ordinarily 2 yrs. after passing the Intermediate examn. in Arts.

Law. The LL.B. (or B.L.) course covers 2 yrs. (Calc.—ordinarily

3 yrs.) after graduating in Arts or Science.

Medicine. The M.B. and B.S. course covers 5 yrs. (Bom.—4½ yrs., Calc. and Rangoon—6 yrs.), starting from the Intermediate examn. in Arts or Science (Calc.—in Science). L.M. and S. course (Rangoon), 5 yrs.

Teaching. The B.T. (All. and Mad.—L.T.) courses cover 1 yr. after graduation in Arts or Science. Calc. gives a L.T., obtainable by 2 yrs. of study after passing the Interm. examn. in Arts or Sc. Bombay requires either 3 yrs.' experience or 2 terms at a Training College after graduation, plus 1 yr.'s experience thereafter; Patna, 1 yr. of study 2 yrs. after passing the Interm. examn. in Arts or Science. The Lucknow Diploma in Teaching, for women only, requires a 1 yr.'s course after graduation in Arts or Science, as does the Rangoon diploma.

Engineering. For the B.E., Bombay gives a 3 yrs.', Benares, Calcutta, Madras, Mysore, Patna, and Rangoon (post-intermediate) a

4 yrs.', course.

HIGHER DEGREES. The M.A. or M.Sc. can be taken by bachelors of 2 yrs.' standing; the M.Sc. Mad. by B.Sc. (Hons.) of 1 yr.'s standing; the Ph.D. Mad. by B.A. (Hons.) or M.A. of 3 yrs.' standing; the D.Litt. of All. and Ph.D. of Calc. by M.A. of 3 yrs.' standing; the D.Lit. or D.Sc. of Panj. by M.A. or M.Sc. after 2 yrs. of further advanced study; the D.Sc. of All. by M.Sc. of 3 yrs.' standing; the D.Sc. of Calc. or Mad. by M.Sc. of 3 yrs.' standing. A degree of M.Com. of Bombay can be taken by B.Com. of 2 yrs.' standing. The examination for the Bombay diploma in Ophthalmology may be taken by L.M. and S. or M.B., B.S. of 1 yr.'s standing.

The LL.M. of All. and Bom., the M.L. of Mad., and the LL.M. of Panj. may be taken by LL.B. or B.L. of 2 yrs.' standing, the M.L. of Calc. or Patna at any time after taking the B.L., the LL.M. of Delhi by LL.B. of 3 yrs.' standing. The LL.D. (or D.L.) is open to LL.M. (or

M.L.) after 5 yrs. (Calc. 1 yr.) of practice.

The M.D. (and in Calc. M.O.) can be taken by medical graduates after experience (Luck. and Panj. 4 yrs., Calc. and Mad. 3 yrs., Bom. 5 yrs.) in the practice of their profession or hospital practice (Luck. and Panj. 2 or 3 yrs., Mad. and Calc. 1 or 2 yrs., Bom. 1 or 2 yrs., in addition to professional practice). The M.S. qualifications are similar, but in Calcutta both hospl. and professional practice are required.

STATUS OF THE NEW UNIVERSITIES. The Univs. of Aligarh, Benares, Dacca, Delhi, and Patna have been incorporated by Acts of the Indian Legislature, and those of Annamalai, Andhra, Agra, Lucknow, and Rangoon by Acts of provincial legislatures. Their degrees and examns are recognized by the Govt. of India to be equal in value to those of the older Univs. for the purpose of admission to public services.

Mysore and Osmania were established by local legislation in Indian States, and are not within the jurisdiction of the Govt. of India. The degrees of Mysore have been recognized by the Univs. of Bombay, Calcutta, the Panjab, and Madras, and most of the new Universities, and by the Govt. of India. Osmania and Mysore degrees have been recognized by the Govt. of India as equivalent to those of the Univs. established by law in India.

Professor Karve's scheme for an Indian Univ. for women with headquarters at Poona has organized there, and, through affiliated institutions, elsewhere, instruction through the Indian vernacular languages adapted to the special needs of women. It is on entirely independent lines.

Number of Students in March 1929 in the 313 Arts and Professional (including 102 Intermediate and 2nd Grade) Colleges was 94,257, including 2689 women.

RESIDENCE. In 1927-28 some 31,123 students (including 951 women) of Arts and Professional Colleges were accommodated in approved hostels or boarding-houses. In 1928-29 the number was 31,912 (including 922 women).

Conferences. In April 1920 a Committee was formed for drafting an outline of the functions and constitution of an Assocn. of Indian Univs.

The project was further advanced at the Congress of Universities of the British Empire at Oxford in July 1921, and at a Conference of Indian Universities held at Simla in May 1924. In accordance with a resolution passed by the Simla Conference, an Inter-University Board has been formed whose present headquarters are at Cawnpore, the Secretary of the Board being P. Seshadri, M.A. The chairman for the year is the Rev. Dr. W. S. Urquhart, M.A., D.Litt., D.D., D.L., Principal, Scottish Church College, Calcutta. The Inter-Univ. Board meets annually at some Univ. centre. Another conference of Indian Univs., on the lines of the conference held in Simla in 1924, was held in Delhi in the autumn of 1929. His Excellency the Viceroy opened the Conference. The Board publishes a Handbook of Indian Univs.

The Viceroy's Gold Medal, instituted in 1926 by Lord Irwin, is open for competition, annually, to undergraduates of any Univ. incorporated by law in British India. It is awarded for the best essay on some practical problem of the day.

Indian Students at the Home Universities. The Education Department of the Office of the High Commissioner for India, India House, Aldwych, London, W.C.2 (Secretary: Thomas Quayle, M.A., D.Lit. Educational Officers: P. K. Dutt, M.A., M.Sc., A.I.C.; R. M. J. Knaster, B.A.; V. I. Gaster, B.A.; N. B. Ker, M.A., LL.B.; Miss C. H. Bose, M.A.), furnishes information and advice on educational and kindred matters to Indian students who come to this country to complete or supplement their education. The Hostel at 21 Cromwell Road, South Kensington, S.W. 7, serves as a centre and meeting-place for Indian students and as a temporary residence for new arrivals. There are Local Advisers at the University of Manchester (J. K. Wood, D.Sc., College of Technology, Whitworth Street), and at Glasgow (R. M. Brown, Ph.D., B.Sc., M.I.M.E., Engineering Department, The University). At Edinburgh, J. E. Mackenzie, Ph.D., D.Sc. (King's Buildings, the University), is the University's Adviser to Indian students. At Oxford Indian students may secure information and advice from H. S. Williamson, M.A., Indian Institute, Broad Street, Secretary to the Delegacy for Oriental Students, and at Cambridge, from R. B. Whitehead, M.A., 22 Fitzwilliam Street, Secretary to the Inter-Collegiate Indian Students Committee.

Indian students who propose to proceed abroad for further study are strongly advised to consult the University Bureau or Advisory Committee of their Province, from whom they can obtain full information about British and foreign universities. The names and addresses of the secretaries are as follows: Ajmere—R. Littlehailes, C.I.E., M.A., Superintendent of Education, Delhi and Ajmere-Merwara, and Secretary, Indian Students' Advisory Board, Rajputana, Delhi; Allahabad—The Director of Public Instruction, Allahabad; Bombay—Khan Bahadur F. M. Dastur, M.A., I.S.O., Univ. Information Bureau, University Building, Fort, Bombay; Calcutta—Prof. S. N. Das Gupta, M.A., Ph.D., Univ. Students' Information Bureau, The University, Calcutta; Dacca—M. Hasan, M.A. (Cal.), B.A. (Oxon.), Univ. Students' Information Bureau, Dacca, Bengal; Delhi—S. N. Mukarji, M.A., Indian

Students' Advisory Committee, St. Stephen's College, Delhi; Gauhati—J. Borooah, Barr.-at-Law, Indian Students' Advisory Committee, Gauhati, Assam; Lahore—M. G. Singh, M.A., Punjab University Foreign Information Bureau, Lahore; Madras—V. K. Pillai, M.A., Univ. Students' Information Bureau, College House, Esplanade, Madras; Mysore—Prof. J. C. Rollo, M.A., Univ. Students' Information Bureau, University of Mysore; Nagpur—K. R. Pandya, Univ. Information Bureau, Nagpur University, Nagpur; Patna—Jamuna Prasad, B.A., M.Sc., M.A., Univ. Students' Information Bureau, Patna, Bihar and Orissa.

The High Commissioner for India is prepared at the request of parents and guardians in India to make arrangements for the supervision of the studies and personal welfare of a limited number of Indian students, and for the administration of funds remitted to him for the purpose. The Secretary to the Oriental Delegacy at Oxford, the Secretary to the Inter-Collegiate Indian Students Committee at Cambridge, the University Adviser at Edinburgh, and the Local Adviser to Indian Students at Manchester and Glasgow, act on behalf of the High Commissioner in the case of students proposing to study at those centres. Inquiries may be addressed either direct to the addresses given above or through the Office of the High Commissioner for India, Education Department. The Department publishes the Handbook for Indian Students—a Guide to the Facilities for University and Professional Studies and Training in the United Kingdom, the Fifth Edition of which was published towards the end of 1930. An annual report on the work of the Department is also published, copies of which can be obtained from the office of the High Commissioner or through the agents for the sale of Government of India publications.

The Hyderabad Government has a Scholarship Committee to regulate the grant of scholarships and give necessary information to students proceeding out of India, and has a special paid guardian for Hyderabad students (B. C. McEwen, Ethnam, Sandhurst, Kent) to look after and report about their progress whilst in Europe.

#### Note

The arrangement of Oriental names in the directory sections has been adopted for convenience of reference and for indexing purposes. It will be adopted systematically in later issues.

## AGRA UNIVERSITY

VISITOR-H.E. THE GOVERNOR-GENERAL.

CHANCELLOR—THE GOVERNOR OF THE UNITED PROVINCES.

Vice-Chancellor—Munshi Narayan Prasad Asthanā, M.A., LL.B., Adv. High Court, Allahabad.

REGISTRAR-PANDIT SHYAM SUNDAR SHARMA, M.A.

Act VIII. of 1926 of the United Provinces Legislature, which received the assent of the Governor-General on Oct. 20, 1926, provides for the establishment of a university "for the purpose of affiliating the colleges associated with the University of Allahabad . . . "so as to set it free to function as a unitary, teaching, and residential institution. It empowers the Agra University to affiliate colleges in the United Provinces, Rajputana, Central India, and Gwalior, except within the limits of the Universities of Allahabad and Lucknow, or within a radius of ten miles from the Benares Hindu University or from the Aligarh Muslim University. To supplement the work in affiliated colleges the University may institute teaching posts at selected centres.

Four categories of persons are to be eligible, subject to prescribed conditions, for degrees and other academic distinctions: (a) candidates who pass the University's examinations after pursuing an approved course at an affiliated college; (b) teachers who pass the University's examinations; (c) research workers; (d) women who have carried on private study. Lectures and instruction may be provided by the University for, and diplomas may be granted to, persons other than students of an affiliated college.

The supreme governing body of the University is the Senate, the other principal authorities being the Executive Council, Academic Board, Board of Inspection, and Faculties of Arts, Science, Law, Commerce, and Agriculture. The Vice-Chancellor, an honorary officer elected by the Senate, is the principal executive and academic officer.

Students are not eligible for admission to a degree course unless they have passed the Intermediate Examination of the Board of High School and Intermediate Education of the United Provinces, or of an Indian University incorporated by law, or an equivalent examination.

The Act came into force on July 1, 1927, and all the constituent bodies of the Univ. have been formed. The Univ. held its first examns. in 1928.

Fourteen of the following Colleges formerly associated with the Univ. of Allahabad are now affiliated to Agra. The Government College of Agriculture at Cawnpore has also been affiliated for the B.Sc.Agric.

Publication. Calendar (August).

#### AFFILIATED COLLEGES

[M.A., etc., after name of College = teaching up to M.A., etc., standard.]

AGRA COLLEGE. M.A.; M.Sc.; LL.B. Principal and Prof. of English Lit.—F. J. Fielden, M.A. Camb. and Lond.

Agra, St. John's College. M.A., in all subjects; B.Com.; M.Sc. in Maths., Physics, Chem., Botany, and Zoology. Under the general control of the

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Church Missionary Society. Admits non-Christians, but is especially for Christians. Principal—W. E. S. Holland, M.A. Ox. Vice-Principal and Prof. of Philos. and Logic—T. D. Sully, M.A. Ox.

AJMER, Govt. College. B.A.; B.Sc. in Maths., Physics, and Chem. Principal—A. Miller, M.A. St. And.

BAREILLY COLLEGE. M.A., M.Sc., LL.B. Principal—W. Owens, M.B.E., M.A. Vice-Principal—A. C. Dutt, M.A. All., M.A. Luck., M.R.A.S. Lond.

CAWNPORE, Christ Church College. M.A., M.Sc. Principal—S. C. Chatterji, M.A.

CAWNPORE, Dayanand Anglo-Vedic College. M.A., B.Sc., LL.B., B.Com. Principal—L. Diwan Chand, M.A.

CAWNPORE. Government Agricultural College. B.Sc.Agric. Principal—C. Maya Das, M.A., B.Sc. Edin.

CAWNPORE, Sanatan Dharma College of Commerce. M.A., B.Com., LL.B. Principal—P. Seshadri, M.A.

GORAKHPUR, St. Andrew's College. B.A. Principal—Rev. A. C. Pelly, M.A. Camb.

GWALIOR, Victoria College. M.A., B.A.; B.Sc. Entirely supported by the State. Principal—H. M. Bull, M.A. Camb.

INDORE, Christian College. M.A. in Philos., B.A. Principal—A. A. Scott, M.A., B.D.

INDORE, Holkar College. M.A.; M.Sc.; LL.B. Maintained by the State. Principal—P. Basu, M.A., Ph.D., B.L. Vice-Principal—C. A. Dobson, B.A. All.

JAIPUR, Maharaja's College. M.A.; B.Sc. Maintained by the State. Principal—P. L. Mathur, M.A.

Jodhpur, Jaswant College. B.A. Principal—A. P. Cox, M.A., I.E.S. Vice-Principal—P. P. Shahani, M.A. Bom.

MEERUT COLLEGE. M.A.; B.Sc.; LL.B. Principal—Lt.-Col. T. F. O'Donnell, B.A. R.U.I.

## THE YEAR 1930-31

Provision made for conducting examns, and amending proficiency certificates in French and German.

Students. Full-time: 2637, including 687 graduates. Part-time: none.

DEGREES (1931). B.A., 473; M.A., 95; B.Sc., 146; M.Sc., 16; LL.B., 94; B.Com., 57; B.Sc. (Ag.), 32.

# ALIGARH MUSLIM UNIVERSITY, ALIGARH

LORD RECTOR—H.E. THE GOVERNOR-GENERAL OF INDIA IN COUNCIL. CHANCELLOR—HIS HIGHNESS NAWAB SIKANDAR SAULAT, IFTIKHARUL MULK, HAJI SIR MOHD. HAMIDULLAH KHAN BAHADUR, B.A., G.C.I.E., C.S.I., C.V.O., Ruler of Bhopal.

Pro-Chancellor-....

Vice-Chancellor—Nawab Masud Jang Bahadur Dr. Syed Ross Masud, B.A. Ox., LL.D., Batt.-at-Law.

Pro-Vice-Chancellor—R. B. Ramsbotham, M.B.E., M.A., B.Litt. Ox., I.E.S.

TREASURER-NAWAB MOHD, ISMAIL KHAN.

REGISTRAR—FAKHR UDDIN AHMAD, M.A., B.E.S.

Hon. Librarian-Mohamed Habib, B.A. Ox., Bair.-at-Law.

### PROFESSORS, LECTURERS, ETC.

Arabic
Prof.*
Memon, Abdul Aziz Reader.
Ali, Abid Ahmad, M.A., LL.B.
Lectr.
Botany [Reader.*
Hyder, Asghar Ali, B.Sc., Ph.D.
Rafiq, Ahmad, Ph.D. Camb.,
M.Sc. Ben., B.Sc. All. Lectr.
2 Demrs.
Chemistry [Prof.*
Hunter, R. F., M.Sc., Ph.D., D.Sc.,
D.I.C., A.R.C.S., A.I.C.
Haider, M., M.A. Camb., B.A. All.,
B.Sc. Lond. Reader.
Desai, R. D., B.A., M.Sc. Reader.
Bakhsh, A., M.A., B.Sc. All. Lectr.
Aziz, Abdul, Ph.D. Lectr.
Ali, B., B.Sc. All., M.Sc. Lectr.
2 Demrs.
Economics
Hyder, L. K., B.A. All. and
Camb., Ph.D. Heid. Prof.*
Reader.

Shafi, S. M., B.Sc. Lond. Lectr. Uddin, S. M., M.A. Lectr. Attaullah, S., M.A. Lectr.

#### Education

Saiyidain, Ghulamus, M.Ed. Leeds,
B.A. Prof.
Rahman, Habibur, M.A., L.T.
All. Lectr.
Husain, Tajammul, B.T. Panj.,
M.A. Lectr.
Siddiqi, W. H., B.A., L.T. Lectr
Hashmi, B. A., M.A., M.Ed.
Lectr.

#### English

Prof. Harris, H. H. K., M.A. Edin.
Reader.\*
Husain, Khwaja Manzoor, B.A.
Ox., M.A. Reader.
Ali, Mukhtar Hamid, M.A. Lectr.
Hasan, Syed M., M.A. Lectr.
Dorab, J. B., M.A. Lectr.

<sup>\*</sup> Chairman of Dept.

Geography Khan, Ibadur Rahman, B.A.,	Khan, Hamid-uddin, M.A. All. Reader.	
L.T. All., Ph.D. Lond.  Reader.*	Ahmad, Zia-i, M.A. All. Lectr.	
Ahmad, Q. Saiduddin, M.A., LL.B. Lectr.	Philosophy Hasan, Syed Z., M.A. All., D.Phil. Ox. and Erlangen Prof.*	
History and Polit. Sc. Haleem, A. B. A., B.A. Ox. Prof.*	Sharif, M. M., B.A. Camb. Reader. Taj, Mohammad, M.A. Panj.	
Habib, Mohd., B.A. Ox. Prof.	Part-time Lectr.	
Halim, A., M.A. Dac. Lectr. Husain, Ashfaque, B.A. Ox. Lectr. Rashid, Q. A., M.A., LL.B. Lectr.	Ahmad, M. M., M.A. Makhdum, M. M., M.A. <i>Physics</i>	
Islamic Studies Krenkow, F., Ph.D. Leipz.	Samuel, R., Ph.D. Gött. Prof. Asundi, R. K., M.Sc., Ph.D. Lond.	
Reader.*	Reader.	
Lectr.	Murad, F. D., B.A., M.Sc. Panj. Lectr.	
Law Naqi, Syed Ali, B.A. Reader.	Ishaque, S. M., M.A., M.Sc., B.T. Lectr.	
Khaliq, Abdul, B.A., LL.B. Reader.*	ı Demr.	
Ishaq, M., B.A. Camb. Lectr.	Theology [(Sunni) Reader.*	
Khan, Wilayat Ahmad, M.A.,	Ashraf, Suleiman Haji	
LL.B. Lectr.	Abu Bakr, Md. M. Shis	
Mathematics	(Sunni) Dean & Lectr.	
Weil, André, Sc.D. Paris Prof.	Reader.	
Datta, H. N., M.Sc. Calc. Reader. Lectr.	Husain, Yusuf, Najafi M. (Shia) Dean & Lectr.	
Shah, S. M., M.A. Lond. Lectr.	Sanskrit	
Rahmatullah, M.Sc. Lectr.	Shastri, Pandit Ram Sarup Lectr. <i>Urdu</i>	
Medicine and Surgery (Unani)	Reader.*	
Butt, A., M.D. Reader.	Siddiqi, R. A., M.A. All. Lectr.	
2 Lectrs.	Zoology, v. also Botany	
I Demr.	Mirza, Babar, D.Ph. Frankf.	
Persian	Reader.*	
Hasan, Syed H., B.A. Camb.,	Sharif, M., M.Sc. Lectr.  Ali E. M.Sc. Lectr.	
B.Sc. Bomb., Ph.D. Lond. Prof.*	Ali, E., M.Sc. Lectr.  I Demr.	
* Chairman of Dept.		

## GENERAL INFORMATION

The Mahomedan Anglo-Oriental College, founded in 1875, became, under the Aligarh Muslim University Act of 1920, a unitary residential University, with Univ. School and Intermediate College attached as separate institutions. The Univ. receives Rs. 3,00,000 annually from the Govt. of India, Rs. 1,52,012 from the Local Govt., Rs. 60,000 from H.E.H. the Nizam of Hyderabad, and contributions from other Indian States. Although the governing body is composed of Mahomedans, and special attention is paid to Muslim Theology, it is

open to all, without distinction of sex, race, creed, or class. In the grounds, comprising several square miles, are halls and hostels sufficient for the accommodation of all the students and some of the staff. LIBRARY, 33,000 vols., besides a collection of MSS. on Oriental Lit. LABORATORIES: Physics, Chem., Botany and Zoology.

The Muslim Univ. School is a feeder to the University and a practising school for the Training College.

COURSES. For students who have passed the Intermediate examn. of an Indian Univ.: two-year course for the B.A. or B.Sc. ordinary and 3 yrs. for B.A. or B.Sc. with hons. One yr. for Teaching Certificate. Courses leading to M.A., M.Sc., LL.B., and B.T. degrees are also provided. Fees: for Tuition, Rs. 8 to Rs. 15 p.m.; Board and residence about Rs. 20 p.m.

Numerous Scholarships for Graduates, enabling them to proceed to higher degrees, are awarded. One of Rs. 75 p.m. for research in Arabic, open to M.A. Two fellowships, Rs. 75 p.m. for 2 yrs. for research in Science and Arts respectively. There is a loan fund for helping poor students.

Publications. Calendar (published irregularly); Prospectus; University Journal.

## THE YEAR 1930-31

BENEFACTIONS.—To commemorate the visit of H.E. Lord Irwin, Viceroy and Governor-General of India and Visitor of the Univ., H.H. the Ruler of Bahawalpur made a princely donation of Rs. one lakh to the Univ. on Dec. 2, 1930. Next day H.H. himself visited the Univ., delivered the Convocation Address and graced the occasion with some other small donations. In June 1931 Dr. S. R. Masud, Vice-Chancellor of the Univ., visited Hyderabad (Deccan) and collected some money from the notables of the State.

New Buildings. New Science laboratories costing Rs. three lakks begun. The residences for students being re-arranged so that in the session 1932-33 there will be 3 Halls of Residence in place of the existing two. Additions also being made to the buildings of the Univ.

RETIREMENT AND RESIGNATION. The temporary Pro-Vice-Chancellor, Mr. Henry Martin, M.A., O.B.E., on return to his former appointment as Principal of the Islamia Coll., Peshawar. Khan Bahadur Syed Zainuddin, M.A., Hon. Treasurer.

Students. Full-time: total, 607, including 273 graduates.

Degrees. B.A., 107; B.Sc., 31; M.A., 26; M.Sc., 6; LL.B., 70; B.T. (Theory), 41; B.T. (Practice), 50; C.T., 1; B.Th., 1.

## UNIVERSITY OF ALLAHABAD

VISITOR-H.E. THE GOVERNOR-GENERAL OF INDIA.

Chancellor—The Governor of the United Provinces of Agra and Oudh.

Vice-Chancellor and Chairman of the Court and Academic Council—Mahamahopadhyaya Ganganatha Jha, M.A., D.Litt., LL.D., Vidya Sagar.

TREASURER—RAI BAHADUR PANDIT KANHAIYA LAL, M.A., LL.B.

REGISTRAR—J. M. DAVID, B.A.

PROCTOR-S. K. RUDRA, M.A.

LIBRARIAN—BENI PRASAD, M.A., Ph.D., D.Sc.

### PROFESSORS, LECTURERS, ETC.

Arabic and Persian
Siddiqi, A., M.A., Ph.D. Prof.
Ali Nami, Syed Mohd., M.A.

Reader.

Lectrs.:

Ali, Syed Ishaq. Ahmad, Z. M. G., M.A., Ph.D. Rahman, Md. N., M.A. Hasan, Saud, M.A., Ph.D.

I Junr. Lectr.

Botany

Mitter, J. H., M.A., B.Sc. Panj.,
Ph.D. Camb. Prof.
Ranjan, S., M.Sc. Camb. Reader.
Saksena, R. K., M.Sc. Lectr.
Srivastana, G. D., M.Sc. Lectr.
I part-time teacher, 2 Demrs.

Chemistry

Dhar, N. R., M.Sc. Calc., D.Sc. Lond., I.E.S. Prof. Chatterji, K. P., M.Sc. Reader. Dutt, S. B., D.Sc. Lond. Reader. Taimini, I. K., M.Sc., Ph.D. Lectr. 7 Demrs.

Commerce

Ghosh, M. K., M.A., B.Com. Lond. (on leave) Reader. Bhatnagar, B. G., M.A. Offg. Reader.

Chowdhury, R. C., M.Sc. Lectr. Dubey, R. N., B.Com. Lectr. Govil, K. L., M.A.

Economics [Prof. Thompson, C. D., M.A. (on leave) Rudra, S. K., M.A. Camb.

Lectr.

(Offg. as Prof.) Reader.

Karwal, G. D., M.A. Panj.

Jain, L. C., M.A., LL.B., Ph.D. (on leave).

Dubey, Daya Shankar, M.A., LL.B. Mehta, J. K., M.A.

Prasad, Saraswati, M.A. (temp.). Kaul, B. N., M.A., Ph.D. (temp.). Thomas, Mrs. M., M.A.

English

Prof.

Jha, A. N., M.A. (Offg. as Prof.) Reader.

Pande, S. A., M.A., LL.B. Reader. Deb, S. C., M.A. Reader.

Lectrs.:

Ojha, Damri, M.A., LL.B. Sircar, K. M., M.A., M.Sc. Misra, S. N., M.A., LL.B. Gupta, L. D., M.A. Dastur, P. E., M.A. Mehrotra, K. K., M.A. (on leave).

Mehrotra, K. K., M.A. (on leave). Bobb, E. V., M.A. (on leave). Bhandarkar, Miss V., M.A.

Simlai, Beni, M.A. (Offg.).

Sahar, Ragherpal, M.A. (Offg.).	Mukerji, A. C., M.A. Reader.
2 Junr. Lectrs., I part-time	Mukerji, N. C., M.A. Lectr.
teacher.	Kaul, R. N., M.A. (on leave)
Hindi	Lectr.
Lectrs.:	Mehdi, Ali, M.A. (Offg.) Lectr.
Varma, D., M.A.	Haldar, Miss A. L., M.A. Lectr.
Shukla, D. P., B.A.	Physics [Prof.
Tripathi, Miss C., M.A. (temp.).	Saha, M. N., D.Sc. Calc., F.R.S.
I Junr. Lectr.	Bhargava, S. R., M.Sc. Reader.
History	Ghosh, R. N., D.Sc. Lectr.
Khan, S. A., M.A., Litt.D. Prof.	Deodhar, G. B., M.Sc. (on leave)
Readers:	Lectr.
Tripathi, R. P., M.A., D.Sc.	Majumdar, K., D.Sc. Lectr.
Prasad, Ishwari, M.A., LL.B.,	6 Demrs.
D.Litt.	Political Science [Prof.
Parmanand, M.A. Lectr.	Prasad, Beni, M.A., Ph.D., D.Sc.
Saxena, B. P., M.A. Lectr.	Ahmad, I., M.A. Lectr.
Prasad, Bisheshwar, M.A. Lectr.	I Junr. Lectr., I part-time teacher.
Seth, Miss S., M.A. Lectr.	Sanskrit
Law	Acharya, P. K., M.A. Calc., Ph.D.,
Prof.	D.Litt. Lond., I.E.S. Prof.
Chaudhri, S. C., M.A. Calc., LL.B.	Saksena, B. R., M.A. Lectr.
(Offg. as Prof.) Reader.	Misra, Umesh, M.A. Lectr.
Jung, M. U. S., M.A., LL.D.	Chatterji, K. C., M.A. Lectr.
Reader.	Herlekar, Miss M. N., M.A. Lectr.
1 part-time teacher.	I Junr. Lectr.
Mathematics	Urdu
Banerji, A. C., M.Sc. Calc., M.A.	Ali, Syed Zamin, M.A. Lectr.
Camb., I.E.S. Prof.	Syed, M. H., M.A., L.T. (on leave)
Prasad, Gorakh, D.Sc. Edin.	Lectr.
Reader.	Husain, H. S., M.A. (Offg.) Lectr.
Srivastava, P. L., M.A., Ph.D.	I Junr. Lectr.
Reader.	Zoology [Prof.
Lectrs.:	Bhattacharya, D. R., Ph.D., D.Sc.
Prasad, B. N., M.Sc.	Mehra, H. R., M.Sc., Ph.D. Camb.
Tiwari, S. G., M.A.	Reader.
Mohan, Piare, M.Sc.	Das, R. S., M.Sc., D.Sc. Lectr.
ı Junr. Lectr.	Varma, S. C., M.Sc. Lectr.
Philosophy	Datta, S. K., M.Sc. Lectr.
Ranade, R. D., M.A. Prof.	2 Demrs.
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## COLLEGES OF THE UNIVERSITY

EWING CHRISTIAN COLLEGE, Allahabad (American Presbyterian Mission). Principal—C. H. Rice, M.A., Ph.D., LL.D. 19 Tutors.

Kayastha Pathshala University College, Allahabad. Principal—Tara Chand, M.A., D.Phil. Ox. 6 Tutors.

CROSTHWAITE GIRLS' COLLEGE, Allahabad. Lady Principal—Miss C. R. Poovaiah, M.A. r Tutor.

## GENERAL INFORMATION

Founded in 1887, the Univ. concerned itself mainly with examinations, having no teaching staff (except that of its School of Law) until 1914. Thereafter it established Chairs and Readerships, etc., for research work in Economics and Modern History for graduate students. In Jan. 1922 was passed an Act (which came into operation in July 1922) for the reorganization of the Univ. as a unitary, teaching, and residential institution, with control, however, over the quality and character of the teaching in "Associated" colleges. In 1926 was passed the Agra University Act, providing for the transfer of the control of these colleges to the Agra Univ. The Univ. now functions as a purely unitary, teaching, and residential Univ.

LIBRARY, 77,731 vols. A section of coins is attached to the Library. Museums in connexion with Econ. and Com. Depts.

FACULTIES. Arts, Science, Law and Commerce.

DEGREES, ETC. B.A., B.A. Hons., M.A., D.Litt.; B.Sc., B.Sc. Hons., M.Sc., D.Sc.; LL.B., LL.M., LL.D.; D.Litt. (Econ.); B.Com.

The courses of study in the Univ. for the bachelor's degree cover 2 (B.A. and B.Sc. Hons.—3) yrs., following an examn. of "Intermediate" standard, equivalent to the Higher School Examn. of the Univ. of Cambridge. The intermediate examns. of other Univs. incorporated by law in British India and the inter. examn. of the Mysore Univ., the inter. examn. of the Board of High School and Interm. Educn., Rajputana (incl. Ajmer-Merwara, Central India, and Gwalior—provisionally for 3 yrs.), are recognized for the same purpose.

For admission to courses leading to higher degrees the B.A. and B.Sc. degrees of any Univ. in British territory recognized by the law of the place in which it is situated, and of the Allahabad and Mysore Univs., are recognized.

Scholarships for Graduates. 2 Empress Victoria Research Scholps., Rs. 100 p.m. (3 yrs.), and 2 Kanta Prasad Research Scholps. for Hindus, Rs. 100 p.m. (2 yrs.), for M.Sc.; Research Scholps. of Rs. 50 each (1 yr.) in History (2), Economics (2), Sanskrit (1), Hindi (1), Arabic and Persian (1), Urdu (1), Philos. (1), English (1), Politics (1), Science (5). There is a SPECIAL FUND for enabling students and staff to proceed to Foreign Countries for higher studies.

Publications. Calendar, Rs. 5; Univ. Examns. Prospectus, Re. 0.8.0.; Univ. Minutes, Rs. 5; University Magazine, Rs. 2.8 p.a.; University Studies, Rs. 7.8; Indian Journal of Economics, Rs. 12 p.a.; Annual Report.

## THE YEAR 1930-31

New Buildings. Two new wings to the Muir Hostel at a cost of Rs. 43,366.

OTHER DEVELOPMENTS. The question of starting degree classes in Agriculture is still under consideration. The design of the University seal has been altered. The new seal bears the emblem of the banyan tree washed by the two local rivers, the Jumna and the Ganges, surrounded by a circular band, the upper half of which bears the words, "University of Allahabad," and the lower half the words "Quot rami tot arbores."

EXTRA-MURAL WORK. Many popular lectures were delivered by members of the teaching staff.

DEATH. Rai Sahib S. C. Deb, M.A., a Govt. servant on deputation with the Univ. and a Reader in Chem.

STUDENTS. Full-time: total, 1650.

DEGREES. B.A., 268; B.A. Hons., 24; M.A., 80; D.Litt., 1; B.Sc., 119; B.Sc. Hons., 5; M.Sc., 41; D.Sc., 2; LL.B., 200; B.Com., 29.

# THE ANDHRA UNIVERSITY, VIZAGAPATAM

VISITOR-H.E. THE GOVERNOR-GENERAL.

CHANCELLOR-H.E. THE GOVERNOR OF MADRAS.

Pro-Chancellor—Raja Sahib Meharbani-Dostan Raja Sri Ravi SWETACHALAPATHI RAMAKRISHNA RANGA RAO BAHADUR, RAJAH OF BOBBILI.

VICE-CHANCELLOR—Prof. Sir S. RADHAKRISHNAN, M.A., D.Litt. REGISTRAR-C. D. S. CHETTI, M.A.

### LECTURERS, ETC.

English

Rao, Subba, M.V.N., M.A. Lectr.

French Srinivasacharya, S., B.A. Tutor.

History, Economics, and Politics Venkatarangaiya, M., M.A. Reader. Rao, Venkat G., M.A., LL.B.

Lectr.

Telugu

Lakshmikantam, P., M.A. Lectr. Suryanarayanasastri, M. Pandit.

#### GENERAL INFORMATION

The Act of the Madras Legislative Council constituting the Andhra Univ. "in and for the Telugu districts of the Presidency of Madras" received the assent of the Governor-General on Jan. 13, 1926, and came into force on April 26, 1926. By a later Act, the area has been narrowed down by the exclusion of certain districts, leaving the following within the affiliating jurisdiction of the Univ.: Ganjam, Vizagapatam, West Godavari, East Godavari, Kistna, Guntur, Nellore. The Act establishes four categories of colleges: "University College," providing for hons, or post-graduation courses for higher degrees; "First Grade College," providing courses for the ordinary degree in Arts or Science; "Second Grade College," preparing for the Inter. Examn.; and "Special Grade College," providing courses in Oriental langs, or in other special subjects.

Among the powers of the University specified in the Act are: to promote the development of the study of Telugu, Kanarese, Urdu, and Oriya, and their use as media of instruction and examination; to institute professorships and other teaching posts; to maintain colleges and hostels; to erect, equip, and maintain laboratories and libraries; to institute and provide funds for the maintenance of a publication bureau, an employment bureau, students' unions, and University Extension boards. Every student of the University must

reside in a hostel or under prescribed conditions.

The supreme governing body is the Senate, by which the Vice-Chancellor, a whole-time salaried officer and principal executive, is elected (for 3 years). The other principal authorities of the University are: an executive body called the Syndicate, comprising 14 members, including the Vice-Chancellor, Financial Secretary to the Local Government, and Director of Public Instruction, Madras, the Academic Council, the Faculties and Boards of Studies.

FACULTIES. Arts, Science, Oriental Learning, Teaching, Medicine.

Admission to Univ. Courses is by matriculation examn, and Secondary School leaving certificate examn., the latter conducted by the Madras Government, or any other examn. recognized as equivalent thereto.

DEGREES. B.A., B.A. Hons.; M.A., M.A. Hons.; B.Ed., M.Ed.; D.Litt., D.Sc., M.B.B.S., L.M.S., M.O.L.; B.Sc., B.Sc. Hons.; M.Sc., M.Sc. Hons.; K.P. (Hon. Doctorate in Oriental Learning).

DIPLOMAS: Titles (4 years' course) and Certificates of Proficiency in Oriental Learning.

The Examinations of all Statutory Indian Univs. are recognized as equivalent to the corresponding examns. of this Univ.

Publications. University Code (Administration, Statutes, Ordinances, Regulations, and Syllabuses); Annual Register (University Authorities, Text Books, Affiliated and Recognized Colleges, Endowments, and Graduates); Annual Report; Minutes; The Beginnings of Local Taxation in the Madras Presidency, by M. Venkatarangaiya (in English) and Lectures on Vemana, by R. Anantakrishna Sarma (in Telugu).

COLLEGES. There are I Hons. coll. and 5 first-grade colls., 5 second-grade, I preparing students for a Med. Degree (M.B., B.S.), and a preparing for the B.Ed. In addition there are 7 Oriental colleges recognized by the Univ. for the Oriental Title Examns. and Certificates of Proficiency in Oriental learning.

UNIVERSITY COLLEGE OF ARTS. Provides Hons. courses in Hist., Econ., Politics, and Telugu. Principal—Vice-Chancellor.

## COLLEGES AFFILIATED IN DEGREE COURSES

#### Arts

GUNTUR, Andhra Christian College. Principal—Rev. J. Roy Strock, M.A., D.D., and 45 lecturers.

MASULIPATAM, Union Noble College. Principal—Rev. A. B. Johnston, M.A., and 29 lecturers.

#### Arts and Science

COCANADA, P.R. College. Principal—Rao Sahib V. Ramakrishna Rao, M.A., Ph.D., L.T., and 30 lecturers.

RAJAHMUNDRY, Government Arts College. Principal—M. S. H. Thompson, B.A., I.E.S., and 22 lecturers.

VIZIANAGRAM, Maharaja's College. Principal—K. Janaki Rao, B.A., L.T., and 33 lecturers.

#### Medicine

VIZAGAPATAM, Medical College. Principal—Major F. J. Anderson, M.C., M.B., B.S., F.R.C.S. (Eng.), I.M.S.

#### Education

RAJAHMUNDRY, Government Training College. Principal—A. Rama Rao, B.A., L.T., I.E.S.

## THE YEAR 1930-31

Benefactions. Rs. 1300, making a total of Rs. 3,05,464 to the end of 1930-31.

NEW BUILDINGS. Over 20 acres of land and a commodious building for administrative office, colleges, and hostels acquired. About 30 acres contiguous with the above and about 60 acres distant about one mile from the central university campus, acquired for playing-fields, etc.

New Departments and Posts. An Hons. College in Arts providing courses of instruction in Hist., Econs., Politics, and Telugu opened July 1931. A Committee appointed to investigate the question of a Univ. Hons. College in Science. A Committee appointed to frame rules and regulations for Compulsory Physical Education in all the affiliated colleges.

New Colleges. During 1930-31, recognition granted to the Andhra Yuvathi Samskrita College, Rajahmundry, as an institution preparing women candidates for Oriental Titles. This is the first women's college of its kind in the Madras Presidency.

Deputations. Sir S. Radhakrishnan, Vice-Chancellor, and Mr. D. Gurumurti, Member of the Syndicate and Vice-Principal, Theosophical College, Madanapalle, represented the Univ. at the Congress of Universities of the Empire held in Edinburgh from July 7 to 10, 1931. Mr. Bh. S. V. Raghava Rao, B.A., A.I.I.Sc., attended the centenary meeting of the British Association for the advancement of Science in London in Sept. 1931 as delegate of the Univ.

UNIVERSITY AND EXTENSION LECTURES. A series of Univ. Lectures and Univ. Extension Lectures were delivered under the auspices of the Univ. during Jan.-March, 1931.

Publications. The following books are in print: 1. History of Andhra Desamu; 2. Chitraprabha.

RETIREMENT AND DEATHS. C. R. Reddi, Vice-Chancellor. Sri Sri Ramachandra Deo, M.L.C., Raja of Jeypore, Pro-Chancellor, and Rao Bahadur D. Lakshminarayan of Kampte, member of the Senate and a benefactor of the University, died.

Students. Full-time: total, 3320, including 110 graduates.

Degrees obtained. B.A., 348; B.Ed., 78; L.M. and S., 13; M.B. and B.S., 4.

ORIENTAL TITLES. Vidya Praveena, II; Ubhayabhasha Praveena, I5; Munshi-i-Kamil, I.

# ANNAMALAI UNIVERSITY, ANNAMALAI-NAGAR, MADRAS PRESIDENCY, SOUTH INDIA

VISITOR-H.E. THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR-H.E. THE GOVERNOR OF MADRAS.

PRO-CHANCELLOR AND FOUNDER—The Hon. RAJAH SIR S. R. M. Annamalai Chettiyar.

VICE-CHANCELLOR-RAO BAHADUR S. E. RUNGANADHAN AVL., M.A., I.E.S.

REGISTRAR-N. VISWANATHA AYYAR, M.A.

LIBRARIAN—M. O. THOMAS, M.A., D.D.

### PROFESSORS, LECTURERS, ETC.

Chemistry

Chakravarti, S. N., M.Sc., D.Phil. Reader.

Sitaraman, M. L., B.A., M.Sc.

Anantavaidyanathan, N., M.A.

Matthew, T. B. I., M.A. Camb.

Asst. Lectr. Nair, A. P. M., B.A. Asst. Lectr.

Economics

Ayyar, T. K. D., M.A., L.T. Prof. Naidu, B. V. N., M.A., B.Com., Ph.D. Reader.

Asst. Lectrs. :

Zacharias, C. W. B., M.A.

Mahadevan, P. K., B.A. Muniswami, M. K., M.A., B.L.

English

Khadye, K. M., M.A. Bom., B.A. Prof. Camb.

Reader. . . . . . .

Lectrs.:

Ayyar, P. A. S., M.A. Cal., M.A. Madr.

Ayyar, S. K., B.A.

Ragland, S. P., M.A. Ayyar, M. S. D., B.A.

Asst. Lectrs.:

Ayyar, A. C. S., B.A.

Menon, K. P. K., B.A. Myleru, C. R., B.A.

Viswanathan, S., B.A.

Ghani, Muhammad, B.A.

French

Divien, E., B.A. Asst. Lectr.

History

Avvangar, P. T. S., M.A., L.T.

Prof. Ayvar, V. G. R., M.A., F.R.E.S.

Ayyar, R. S., M.A. Lectr. Bhaskaran, R., B.A. Asst. Lectr.

Govindaswami, S. K., B.A.

Asst. Lectr.

Mathematics

Rao, A. Narasinga, M.A., L.T.

Ayyangar, G. V. K., M.A.

Reader. Pillai, S. S., B.A., M.Sc. Lectr. Ramamurti, B., M.A. Asst. Lectr. Raju, C. T., B.A. Asst. Lectr.

Subrahmanyan, S., B.A.

Asst. Lectr.

Philosophy Sen, S., M.A., D.Litt. et Phil.

Reader. Ramanujachariar, R., M.A. Lectr. Naidu, P. S., M.A. Asst. Lectr. Srinivasan, C. T., M.A.

Asst. Lectr.

Physics
Rao, S. Ramachandra, M.A.,
Ph.D. Lond. Reader.
Rao, N. S. Subba, M.A. Lectr.
Ayyar, S. N., M.A. Asst. Lectr.
Navanithakrishnan, T. P., M.A.
Asst. Lectr.

Viswanathan, R. K., B.A.

Asst. Lectr.

Sanskrit

Pisharoti, K. Rama, M.A., L.T.

Reader.
Sastri, V. A. R., B.A.
Dikshitar, S., M.D.
Lectr.

Pandits:
Dikshitar, T. V.

Sastrigal, S. R. Sastrigal, K. A. S.

Sastrigal, P. P.

Sastrigal, S. N.

Sastrigal, V. S.

Srinivasachariar, K. Rajah, P. R. G., B.A.

Venkatachariar, K. S.

Kurup, K. K. (Malayalam).

Tamil

Maharaj, S. V., B.Sc. Lond.

Reader.

Pillai, R. P. S., B.A., B.L. Lectr.

Pandits:

Ayyar, N. B.

Ponnothuvar, N. Pulavar, S. R.

Sivaprakasam, A.

Kandasamiar, R.

Physical Education L. K. Govindarajulu, B.A., B.L.

## GENERAL INFORMATION

As the result of an offer by Rajah Sir S. R. M. Annamalai Chettiyar to transfer to a residential teaching University, if one were founded, the Sri Minakshi College for higher instruction in English, the Sri Minakshi Tamil College and the Sri Minakshi Sanskrit College which he had established and maintained, together with an endowment of twenty lakhs of rupees, the Government of Madras passed an Act in 1928 accepting the offer and providing for the establishment of the Annamalai University. Government also provided 27 lakhs towards the endowment fund, a recurring grant of one and a half lakhs a year and, subject to conditions to be agreed between them and the University, a sum of seven and a half lakhs for building and equipment.

The authorities of the University under the Act are: (1) the Senate, (2) the Academic Council, (3) the Faculties, (4) the Boards of Studies, (5) the Syndicate, (6) the Finance Committee (for a period of 10 years from May 15, 1929), and (7) the Board of Selection. The Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Senate, Academic Council and Syndicate constitute the body corporate of the University. The Vice-Chancellor is a whole-time salaried officer who holds office for 3 yrs. and is appointed by the Chancellor on the nomination of the Founder.

The courses of study and syllabuses for the several Examns. of this Univ. have been, in the main, largely based on those of Madras Univ. The Hons. Degree Examns. and the Oriental Title Examns. in every subject are partly viva-voce. Provision is also made for a course of instruction in the German and French langs.

Under the Act residence in a hostel or lodgings maintained or recognized by the Univ. is compulsory on all students. The resident tutors attached to the hostel regulate attendance and exercise disciplinary control and supervision over the students. An important feature of the working of the Hostel is the close association of students in the management of the affairs of each section.

Physical Training is compulsory on all students, and weekly lectures on Physiology, Health and Hygiene are delivered during regular hours for their benefit.

FACULTIES. Arts, Science, and Oriental Studies.

Admission. Holders of completed School Leaving Certificates under the S.S.L.C. scheme approved by the Govts. of Madras and the Madras States approved by the Syndicate, who are declared eligible for admission to a University course of Study.

DEGREES. B.A., B.A., (Hons.); B.Sc., B.Sc. (Hons.); M.A., M.O.L. (Oriental Learning).

DIPLOMAS. Titles in Oriental Learning. 4 years' course. Certificates of Proficiency in French and German.

RECOGNITION OF EXAMNS. of other Univs. Examns. of all other Statutory Indian Univs. are recognized for purposes of admission.

FEES. Tuition, per term: B.A., B.A. (Hons.), B.Sc., B.Sc. (Hons.), Rs. 36-38; Science students, Rs. 2-5 addnl., plus deposit fee, Rs. 5-15; Intermed., Rs. 28-30; Sci. Students, Rs. 2, plus deposit fee, Rs. 5. Admission, Re. 1; Games (Phys. Training), Rs. 2; Registration of graduate for life, Rs. 5.

BOARDS OF STUDIES. English, Modern European Langs. (other than Engl.), Philos., Hist. and Politics, Econ., Maths., Physics, Chem., Nat. Sci., Tamil, Sanskrit, and Malayalam.

DEANS. K. M. Khadye, M.A. Bom., B.A. Camb. (Arts); M. R. Ry. A. Narasinga Rao Avl., M.A., L.T. (Science); M. R. Ry. K. Rama Pisharoti Avl., M.A., L.T. (Oriental Studies).

LIBRARY. 25,000 volumes.

LABORATORIES (Physics and Chemistry). With workshops and special arrangements for practical work.

Tutorial Instruction and disciplinary supervision for all students are provided by assigning about 15 students to each member of the teaching staff.

RESIDENCE. Students are required to live in hostels attached to the University or in approved lodgings recognized by the University. Rent from Re. 1.0-0 to Rs. 1.8-0 p.m.

RESEARCH. Studentships tenable 2 yrs., value Rs. 60 per mensem. Fellowships tenable in India and abroad. Value Rs. 125 to Rs. 150 p.m.

Publications. Calendar (July); Annual Report (April).

## THE YEAR 1930-31

Benefactions. The Founder's Prizes amounting to Rs. 9500; M. R. Ry. Diwan Bahadur Alladi Krishnaswami Ayyar Avl., Rs. 750 for a medal; The Goschen Memorial Scholarship, Rs. 4440.

New Buildings. A building scheme of about 15 lakhs is being worked out. Extension of the Arts Block at a cost of Rs. 1½ lakhs; the Vice-Chancellor Quarters, Rs. 50,000; construction of residential quarters for teaching staff at a cost of Rs. 50,000; electrification of Univ. area at a cost of Rs. 75,000; estimates are being prepared for the construction of the Convocation Hall at a cost of about Rs. 4 lakhs.

New Departments and Posts. Natural Science Dept.; Professorship in Tamil.

OTHER DEVELOPMENTS. The University Union has been modelled on those of Oxford and Cambridge.

CHANGES IN REGULATIONS. Institution of Hons. courses in Chem. and Tamil, and of a Post-graduate course in Physics. The courses of study and syllabuses for the B.A. and B.A. (Hons.) Degrees have been revised during the year. The main features of the revised course are: (1) a compulsory course in Engl., and the inclusion of Engl. as an optional subject; (2) the introduction of a compulsory course of instruction and examn. in one of the languages—classical, modern European other than English or Indian; (3) division of Arts and Science subjects, the former group leading to the B.A. and the latter to the B.Sc.

VISITS OF MEMBERS OF OTHER UNIVS. Prof. Sir S. Radhakrishnan delivered a course of lectures during the academic year.

STUDENTS. Full-time: total, 568, including 2 graduates.

Degrees obtained. The first Convocation was held in the year 1931. B.A., 31.

# BENARES HINDU UNIVERSITY, BENARES, U.P.

LORD RECTOR-H.E. THE GOVERNOR-GENERAL OF INDIA, ex officio.

VISITOR-H.E. THE GOVERNOR OF THE UNITED PROVINCES, ex officio.

CHANCELLOR-H.H. THE MAHARAJAH OF BIKANIR.

PRO-CHANCELLOR-H.H. THE MAHARAJAH OF BENARES.

VICE-CHANCELLOR-Pandit MADAN MOHAN MALAVIYA, B.A., LL.B.

Pro-Vice-Chancellor and Secretary of the Court and the Council—Principal A. B. Dhruva, M.A., LL.B.

TREASURER—Hon. RAJA SIR MOTI CHAND, C.I.E.

REGISTRAR-Pandit INDRA DEVA TIWARY, M.A.

The University was founded in 1916. For early history, cf. Yearbook for 1930.

The Univ.'s assets, including perpetual grants by the Govt. of India and by Ruling Chiefs of Rs. 1,00,000 and 75,000 respectively, are valued at Rs. 1,80,00,000.

Every member of the *Court*, the supreme governing body, must be a Hindu. It includes representatives of benefactors, graduates, the Senate, the Jain and Sikh communities, Hindu religion and Sanskrit learning, the learned professions. Of the *Senate*, the academic body, at least three-fourths must be Hindus; it includes (1) the Chancellor, Pro-Chancellor, Vice-Chancellor, Pro-Vice-Chancellor, Univ. Profs., and Principals or Heads of Colleges as *ex-officio* members; (2) 5 members nominated by the Visitor; (3) elected members, including representatives of the Court, of Hindu religion and Sanskrit learning, and graduates. The *Council* and *Syndicate* are the executive bodies of the Court and Senate respectively.

LABORATORIES: Chem., Physics, Zool., Bot., Geol., Mining and Metallurgy. The Engineering College laboratories include shop equipped for manufacturing machines, smith and paint shops, iron and brass foundry, and motor-car repair shop; a power-house is also attached to the College.

Admission. The Univ. is, subject to regns., open to persons of all classes, creeds, and castes, but provision is made for religious instruction (which is compulsory for Hindu students) and examination in the Hindu religion only. Women are eligible for admission to the Univ. and examins., degrees, etc.

FACULTIES. Oriental Learning, Theology, Arts, Science—Pure and Applied, Law, and Indian Med. and Surgery (Ayurveda).

Degrees. B.A., M.A., D.Litt., B.Sc., B.Sc. in Appl. Sc. (Engin.), B.Sc. (Mining), B.Sc. (Metallurgy), M.Sc., D.Sc., Shastri, Shastracharya, Smritiratna, Smritisagara, Dharmashastri, Dharmacharya, LL.B., LL.M., LL.D., L.T. The admission qualification for Degree course (4 yrs.) in Mining or in Metallurgy is Interm. Sc. examn. of an Indian Univ. or Board of Interm. Education, with Physics, Chem., and Maths.

RESIDENCE. Students are required to live in a Univ. or College Hostel, or, subject to the approval of the Pro-Vice-Chancellor, with parents or

guardians. There are 7 hostels accommodating 1600 students and 84 residences for members of the staff.

Scholarships. 76 for Arts and Science students of merit, 20 for Teachers' Training College. Numerous other College Scholps.

PUBLICATION. Calendar.

#### COLLEGES MAINTAINED BY THE UNIVERSITY

CENTRAL HINDU COLLEGE. Principal (Univ. Prof. of Sansk.)—A. B. Dhruva, M.A., LL.B. Honorary Univ. Profs.: Sir P. C. Roy, C.I.E., D.Sc. (Chem.); S. S. Bhatnagar, D.Sc. (Chem.); Sir C. V. Raman, M.A., D.Sc., F.R.S. (Phys.); N. C. Nag, M.A., F.I.C. (Chem.); B. Keightley, M.A. (Philos.); V. G. Kale, M.A. (Econ.); N. R. Dhar, M.A., D.Sc. (Phys. Chem.); Sir S. Radhakrishnan, M.A. (Phil.). Univ. Profs.: K. K. Mathur, B.Sc., A.R.C.S. (Geol.); G. S. Mahajani, B.A., Ph.D. (Maths.). Others: Athletics—Nand Lal; G. S. Patwardhan; M. Master. Bot.—A. C. Joshi, M.Sc.; N. K. Tiwary, M.Sc.; Bhola, Nath Singh, M.Sc.; Y. Bharadwaia, M.Sc.; K. R. Mehta, M.Sc.; Krishna Kumar, M.Sc.; Aeshayabar Lal, M.Sc. Chem.—M. B. Rane, M.A.; S. K. Basu, D.Sc., Ph.D. Berl.; P. S. Varma, M.Sc.; D. N. Banerji, M.Sc.; P. N. Roy, M.Sc.; A. T. Mazumdar, M.Sc.; K. C. Banerji, M.Sc.; S. Joshi, D.Sc.; Shyam Kishore Sharma, M.Sc.; A. T. Ganguly, M.Sc. Chem. (Industrial)—N. N. Godbole, B.Sc., M.A., Ph.D.; Dogar Singh (Ceramics); H. N. Bose, M.Sc.; A. N. Ghose, B.A.; C. C. Trigunayat, M.Sc.; K. D. Gupta, L.M.E. Econ.—Pran Nath, D.Sc.; G. N. Singh, M.Sc.; S. V. Puntambekar, M.A.; B. K. Mazumdar, M.A., B.Sc. Lond.; M. B. Lal, M.A.; K. P. S. Malani, M.A. Engl.—U. C. Nag, M.A., Ph.D.; M. M. Desai, M.A.; J. S. Yajnik, M.A., LL.B.; S. N. Lal, M.A., LL.B.; B. L. Sahni, M.A.; G. D. Sastri, M.A., LL.B.; V. S. Tilak, M.A.; M. P. Sinha, M.A.; C. N. Menon. Geology—K. K. Mathur, B.Sc., A.R.S.M.; K. P. Rode, M.Sc.; D. K. Chakravarty, M.Sc.; Rajnath, M.Sc., Ph.D. Hist.—S. N. Bhattacharya, M.A.; K. Bhattacharya, M.A.; S. V. Puntambekar M.A. Ox.; G. P. Mehta, M.A.; P. Saran, M.A. Hist. and Culture, Ancient Indian—A. S. Altekar, M.A., LL.B.; R. S. Tripathi, M.A., Ph.D.; B. Ć. Battacharya, M.A. Indian Langs.: Sans-krit—N. K. Bhattacharya, M.A.; B. Upadhyaya, M.A.; B. N. Sarma, M.A. Bengali—R. N. Vidyabhusan. Gujrati—A. B. Dhruva, M.A., LL.B. Hindi— S. S. Das, B.A.; R. C. Shukla; Bagwan Diu; K. P. Misra; P. D. Bartwal, M.A.; A. S. Upadhyaya. Marathi-B. G. Khaprada, M.A., LL.B. Urdu-Munshi Mahesh Prasad. Maths .- S. C. De, M.A.; P. Prasad, M.A., B.Sc.; D. D. Kosambi, S.B. Harv.; S. C. Das Gupta, M.A.; Jugal Kishore, M.A.; Subramania Sastry, M.A. Pers. and Arabic-M. Prasad, Maulvi Fazil; S. A. Hasan, M.A. Philos.-P. B. Adhikari, M.A.; S. K. Maitra, M.A., Ph.D.; S. L. Dar, M.A.; B. L. Atreya, M.A., D.Litt. Phys.—P. K. Dutt, M.A. Camb., N. K. Pande, B.Sc.; C. M. Sogani, D.Sc.; P. C. Ghose, M.Sc.; B. M. Mazumdar, M.Sc.; N. C. Chatterjee, M.Sc.; K. Narasimham, M.Sc. Religion-A. B. Dhruva, M.A., LL.B.; S. K. Joshi; Triloki Chand. Zoology—Chandra Bal, M.Sc.; K. N. Gupta, M.Sc.; R. C. Saksena, M.Sc.; S. Chatterjee, M.Sc.; V. L. Powar, M.Sc.

Colleges of Oriental Learning and Theology. Principals: O.L.—Maha. Pandit Pramatha Tarkabhuhan; Theol.—Pandit Vidyshar Gour. 30 other Profs.

Teachers' Training College. Principal, Rai Bahadur Pandit Lajja Shankar Jha. 5 Assts.

ENGINEERING COLLEGE. Principal and Prof. of Mech. E .- C. A. King,

B.Sc., A.R.C.Sc., M.I.M.E., M.I.S.E. Other Profs.: H. P. Philpot, B.Sc.; B. C. Chatterji, B.A., B.Sc., B.L., M.I.E.E.; R. S. Jain, B.Sc.; V. Pande. 10 Asst. Profs. and a Demr. Arrangements have been made for holding, at the College, examns. of the City and Guilds of London Institute.

AYUR VEDIC COLLEGE. Principal, Kaviraj D. Das, and six others.

DEPARTMENT OF MINING AND METALLURGY. Head of Dept. and Univ. Prof. of Mining and Metallurgy—N. P. Gandhi, M.A., B.Sc., A.R.S.M., D.I.C., M.I.M.M., and 5 others.

Law College. Hon. Profs.: Sir Tej Bahadur Sapru, K.C.S.I., M.A., LL.D.; K. N. Katju, M.A., LL.D.; A. P. Dube, M.A., B.C.L.; A. N. Sanyal, M.A., LL.B. Lond.; U. S. Bajpai, M.A., LL.B.; Wali Ullah, M.A., B.C.L., LL.D.; K. Narain Malaviya, M.A., LL.B.; Pandit Umakant Pande, B.A., LL.B.; Pandit Yagyanarain Upadhyaya, M.A., LL.B.; Tek Chand. Others: L. R. Siva Subramaniam, B.A., M.L. Mad.; Pandit B. N. Vyas, M.A., LL.B. All.; Pandit B. R. Opadhyaya.

The Women's College. Principal, Miss A. Adhikari, M.A. Mrs. K. Tilak, M.A.; B. Mazumdar, M.A.; Miss K. Kolhatkar, M.A.

## THE YEAR 1930-31

STUDENTS. Full-time: total, 2419 (incl. 48 women).

DEGREES. B.A., 100; M.A., 40; B.Sc., 59; M.Sc., 24; B.Sc. (Min. and Met.), 5; B.E., 44; L.T., 47; Shastri, 21; Shastracharya, 2; LL.B., 80; D.Litt. (Honorary), 2.

## UNIVERSITY OF BOMBAY

CHANCELLOR-H.E. THE GOVERNOR OF BOMBAY.

VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE—The Rev. John McKenzie, M.A., B.D.

REGISTRAR—SUNDERRAO RAMRAO DONGERKERY, B.A., LL.B.

#### GENERAL INFORMATION

Founded in 1857, the Univ. has concerned itself mainly with examinations, and maintained no teaching staff until 1913. Since then it has provided annually lectures for post-graduate students in English, History, Economics, Sociology, Sanskrit, and Mathematics. In 1919 it established a School of Economics and Sociology for research in these subjects. Extensions to University buildings, costing Rs. 8,13,000, were completed in 1923.

LIBRARY (established 1864, owing to Premchund Roychund Benefaction, Rs. 4,00,000), 35,000 vols., including Fawcett Collection (Econ.).

FACULTIES. Arts, Science (including Agric. and Engin.), Law, Medicine.

DEGREES. B.A., M.A.; B.Sc., M.Sc.; B.Com., M.Com.; B.T.; LL.B., LL.M.; M.B., B.S.; B.Hy., M.D., D.Hy., M.S.; B.Ag., M.Ag.; B.E. (Civ., Mech.), M.E. DIPLOMA in Ophthalmology (D.O.).

RECOGNITION of examns. of other Univs.: Interm. Arts and Sc. examns. of other Indian Univs. and London, and also B.A., B.Sc., LL.B. of some of the Indian Univs. (see *Handbook*).

FEES for Univ. post-grad. courses, Rs. 40 per term.

RESIDENCE. Board and lodging at Colleges generally from Rs. 40 to Rs. 75 p.m.

Scholarships for Graduates. In Sanskrit, Bhugwandass Purshotumdass, Rs. 720; Law, Sir Mangaldas Nathubhai, Rs. 1000 p.a. for 3 yrs.; Travelling Fellowship, Rs. 700 p.a. for 3 yrs. for Hindus; Technical educn. in England for Hindus, Rs. 2000 p.a. for 3 yrs.; Springer Research Scholp. Lectureships: Wilson Philological, Rs. 750 (6 cold weather lectures); Bhagvanlal Indraji, Rs. 1000 (6 lectures on Indian Epig., etc.); Bhimrao Ramrao Research Scholp., Rs. 2400 p.a. for 3 years. The Sir Pherozeshah M. Mehta Research Scholarship, Rs. 850 p.a. for 3 years for research in History or Economics.

Sir Currimbhoy Ebrahim endowment (3½ p.c. Govt. securities, nominal value, Rs. 10,00,000) for scholarships by way of advances (repayable) to Mahomedan students going to foreign countries for higher studies in Medicine, Philology, Ancient History, Arabic, Architecture, Town-planning, and Technological and Industrial subjects and for the superior services: Rs. 3600 p.a. for 3 yrs.

The Edaljee Dinshaw Scholarships—14 scholarships of the aggregate value of Rs. 25,000 p.a. tenable for 3 years, and open to members of the Parsi Community under certain conditions.

INSPECTION OF COLLEGES is conducted by means of committees, aided by an assessor from beyond the Presidency.

INSPECTION OF SCHOOLS applying for recognition for purposes of the Matriculation examn. is arranged for by the Syndicate.

Publications. Handbook (July), Rs. 3; Calendar (Dec.), Rs. 4; Examination Papers, Rs. 2.

UNIVERSITY SCHOOL OF ECONOMICS AND SOCIOLOGY

Prof. of Economics—C. N. Vakil, M.A., M.Sc. Lond.; Reader—Dwarkanath Ghosh, M.A.

Readers in Sociology—G. S. Ghurye, M.A., Ph.D. Camb.; N. A. Toothi, D.Phil. Ox., B.A.

WILSON PHILOLOGICAL LECTURER. V. K. Rajwade, M.A.

# AFFILIATED INSTITUTIONS RECOGNIZED IN DEGREE COURSES

Ahmedabad, Gujarat College (Govt.). Recognized in courses for B.A., M.A., B.Sc. Principal—G. F. Shirras, M.A. Aberd., F.S.S. Profs.: Botany—S. L. Ajrekar, B.A. Chem.—D. D. Kanga, M.A. English—S. S. Bhandarkar, B.A.; R. N. Welingkar, B.A. Ox. French—S. P. Taraporewala, M.A., LL.B. Gujarati—K. H. Dhurva, D.B., B.A. Hist.—M. S. Commissariat, M.A.; S. G. Deshpande, M.A. Maths.—S. M. Shah, M.A. Persian—M. E. Namazi, B.A. Physics—V. B. Divatia, B.A. Camb., M.A. Sansk.—K. V. Anhyankar, M.A. Zoology—J. J. Asana, M.A. 10 other Asst. Lectrs.

Ahmedabad, Law College. Under control of the Gujarat Law Society. Principal—D. S. Sethna, M.A. 7 other Profs.

Baroda, College (State). In courses for M.A., M.Sc., B.A., B.Sc. Principal —S. G. Burrow, B.Sc. Lond., A.R.C.S. Profs.: Biol.—S. V. Shevde, B.Sc. Chem.—K. G. Naik, M.A., D.Sc., D.I.C. Lond.; M. D. Awasare, B.A., M.Sc. Engl.—A. X. Soares, M.A., Ll.B.; G. F. Williams, B.A. Camb.; S. M. Wadia, M.A. Hist. and Pol. Econ.—J. M. Mehta, M.A. Ox.; K. H. Kamdar, M.A. Logic and Mor. Philos.—A. K. Trivedi, M.A., Ll.B.; M. A. Buch, M.A. Maths.—Gajanan G. Pendse, M.A.; A. C. Mukherjee, M.A.; B. Sengupta, M.A. Calc., B.L. Pers.—M. A. Kazi, M.A. Phys.—S. G. Burrow, B.Sc. Lond.; N. K. Apte, M.A., B.Sc. Sansk.—B. C. Lele, M.A., Ph.D. 7 other Lectrs., etc.

Bhavnagar, Samaldas College (State). In B.A. courses. Principal, and Prof. of Engl. and Hist.—T. K. Shahani, M.A. 10 other Profs., 1 Lectr.

Bombay, Elphinstone College (Govt.). In Arts. Principal, and Prof. of English Lit.—H. Hamill, B.A. Belfast. Other Profs.: S. S. Bhandarkar, B.A. French.—V. G. Rao, B.A. Camb. Hist. and Pol. Econ.—S. G. Panandikar, M.A., Ph.D. Lond.; R. P. Patwardhan, B.A. Ox. Logic and Mor. Philos.—J. C. P. D'Andrade, M.A., LL.B. Maths.—P. S. Katti, M.A. Camb. Pers.—N. D. Minocherhomji, B.A. Sansk.—A. B. Gajendragadkar, M.A., and 7 others.

Bombay, Grant Medical College (Govt.). In Med. and in B.Sc. courses. Dean, and Prof. of Physiol. and Histol.—Major S. L. Bhatia, M.D. Camb., I.M.S. Profs.: Bact.—P. A. Dalal, L.M. & S., D.T.M. & H. Camb. Med. Jurisprudence—W. Nunan, B.A., M.D. Dub. Med.—Lt.-Col. S. S. Vazifdar, M.R.C.P., I.M.S. Mat. Med. and Pharmacy—Sorab K. Engineer, O.B.E., F.R.C.P.S., F.C.P.S. Midw. and Dis. of Women and Children—Lt.-Col. A. F. Hamilton, M.B. Lond., I.M.S. Surg.—S. R. Moolgavkar, F.R.C.S. Ophth.

—J. N. Duggan, O.B.E., L.M. & S., D.O., M.S. Ox. Phys.—J. A. D'Souza, B.A., L.M. and S. Physiol. and Histol.—G. B. Mankad, M.D. Bom., M.R.C.P. Lond. Operative Surg.—V. L. Parmar, M.B., B.S., F.R.C.S. Path.—Raghavendra Rowe, M.D., D.Sc. Lond. Skin Dis.—C. Fernandez, M.D. Laryng., etc.—S. H. Modi, F.R.C.S. Anasth.—J. R. Jagose, L.M. and S., D.T.M. Liv. Elec.-Therap.—P. M. Desai, M.R.C.S., L.R.C.P., D.M.R.E. Camb. Hygiene—H. D. Khote, M.B., B.S., M.R.C.P., D.P.H. Dentistry—J. J. Modi, L.M. & S., L.D.S. Eng. Anat.—R. C. Motwani, M.S. 4 Asst. Profs.

Bombay, Government Law College. Principal—V. G. Dalvi, B.A., LL.B. Camb. Profs.: B. K. Desai, M.A., LL.B.; M. L. Maneksha; H. V. Divatia, M.A., LL.B.; M. A. Somjee, B.A., LL.B.; N. H. Bhagwati, M.A., LL.B.; A. A. A. Fyzee, B.A. (Camb.), LL.B.; K. V. Joshi, M.A., LL.B.; S. R. Parulekar, B.A., LL.B.; M. G. Rao, M.A., LL.B.

BOMBAY, Ismail College, Andheri (Govt.). In Arts and Sc. Principal, and Prof. of Persian—M. B. Rihman, M.A., Ph.D. Camb. Eng.—F. Correa-Afonso, M.A., LL.B. 3 other Profs.

BOMBAY, St. Xavier's College (S.J.). In Arts for B.A. and M.A.; in Science for B.Sc. and M.Sc. Principal, and Prof. of French—J. Dühr, Ph.D., D.D. Other Profs.: Biol.—J. P. Mullan, M.A., and 3 others. Chem.—J. F. Caius, F. Sacasa, and 4 others. Engl. Lit.—J. Fell, and 2 others. French Lit.—W. A. Phillips, O.A., and another. Geology—A. S. Kalapesi, B.A., B.Sc. (on leave). Hebrew—E. M. Ezekiel, B.A., Ll.B. Hist.—H. Heras, A. C. Fernandez, M.A., E. Kaufmann. Latin—A. L. M. Menezes, M.A. Maths.—H. Rafael, K. G. Datar, M.A., Ll.B., and another. Persian and Arabic—Syed M. S. Reza. Philos.—M. Sola, M.A., Ph.D. Physics—R. Rafael, S.J. Sansk.—K. M. Shembaynekar, M.A.

Bombay, Wilson College (U.F. Church of Scotland). In Arts; in Science for M.Sc. Principal, and Prof. of Philos.—J. McKenzie, M.A. Aberd. Other Profs.: Biol.—M. Ezekiel, M.Sc.; V. N. Hate, B.Sc. Chem.—A. R. Normand, M.A., B.Sc., Ph.D. Edin. Econ.—J. Kellock, M.A. Engl. Lit.—R. D. Choksi, M.A.; J. Mackintosh, M.A. Edin. French.—Miss P. S. Harley, B.A. Ox.; B. M. Mehta, M.A. Maths.—J. McLean, M.A., B.Sc. Aberd. Persian.—M. Ahmed, M.A. Calc. Philos.—B. P. Hivale, M.A., Ph.D. Philos. and Hist.—P. A. Wadia, M.A. Physics.—D. B. Naik, M.A., B.Sc., LL.B. Sansk.—Hari D. Velankar, M.A. 15 other Teachers.

BOMBAY, Cama and Allbless Hospitals. In Midwifery courses for the M.D.

Bombay, Sydenham College of Commerce and Economics (Govt.). In Arts for B.Com. and M.Com. Principal, and Prof. of Currency and Banking—M. L. Tannan, B.Com. Birm., I.E.S. Other Profs.: Engl. and Cotton Industry—M. J. Antia, M.A., LL.B. Camb. Econ.—R. M. Joshi, M.A., LL.B., B.Sc. Lond. Statistics—H. L. Kaji, M.A., B.Sc. Prof. of Merc. Law—Y. B. Rege, B.A., LL.B. Accounting and Auditing—S. S. Engineer, B.A., F.S.A.A. Prof. of Econ. Hist. and Admin.—Dr. N. J. Shah, B.A., Ph.D. Lond. Actuarial Science—L. S. Vaidyanathan, M.A., F.I.A. 5 other Teachers.

BOMBAY, Secondary Training College (Govt.). Trains graduates in Arts for the B.T. degree. Principal, H. V. Hampton, M.A., Dip. Ed. Dublin, and 5 other Lectrs.

Bombay, Municipal Laboratory. In Chem. courses for the B.Hy. examn.

BOMBAY, Royal Institute of Science (Govt.). In Science for B.Sc. and M.Sc. Principal, and Prof. of Org. Chem.—A. N. Meldrum, D.Sc. Other Profs.: Phys.—G. R. Paranipe, M.Sc. Zool.—P. R. Awati, B.A. Camb.,

D.I.C., F.E.D. Bot.—R. H. Dastur, M.Sc. Bom. Maths.—K. R. Gunjikar, B.Sc., M.A. Camb. Inorg. and Phys. Chem.—Mata Prasad, D.Sc., and 12 Asst. Lectrs.

Bombay, Seth G. S. Medical College (Munic.). In Medicine. Dean and Prof. of Med.—J. N. Mehta, M.D., M.R.C.P. Profs.: Path. and Bact.—V. R. Khanolkar, M.D., B.Sc. Anat.—R. P. Koppikar, M.S. Physiol.—S. P. Niyogi, M.Sc., M.B. Pharm. and Mat. Med.—A. S. Paranjpe, M.D., D.T.M., Ch.B. 21 Honorary Lecturers.

DHARWAR, Karnatak College (Govt.). In Arts and Sc. Principal, and Prof. of Indian Hist. and Econ.—A. C. Farran, B.A. Dub. Other Profs.: English—N. S. Takakhav, M.A. Econ.—S. K. Muranjan, M.A. Sansk.—V. G. Bhat, M.A. Camb. Pers.—A. M. Moulvi, M.A. Maths.—D. P. Patrawali, M.A. Camb. Logic and Philos.—A. D. Dhopeshwarkar, M.A., LL.B. 13 Lectrs. and Demrs.

HYDERABAD (SIND), Sind National College. In Arts. Actg. Principal, and Prof. of Philos. and Log.—N. D. Gurbaxani, M.A. 7 other Profs.

JUNAGADH, Bahauddin College (State). In Arts. Principal, and Professor of Persian, Urdu, etc.—Syed Nawab Ali, M.A. Other Profs.: Engl.—K. L. Oza, M.A. French—C. F. Saldanha, M.A. Maths.—Hari Shankar, M.A. Pers.—M. H. Tirmizy. Sansk.—N. B. Purohit, M.A.; S. B. Athalve, M.A. Science—Vasudev S. Ghurye, M.A. Hist. and Pol. Econ.—M. J. Pathakji, M.A., Ll.B. 3 Lectrs.

KARACHI, Dayaram Jethmal Sind College. Under control of the Sind Collegiate Board. In Arts; in Science for B.Sc. Principal, and Prof. of Phys.—S. B. Butani, M.A., B.Sc. Other Profs.: Biol.—M. G. Punvani, B.A., M.B. Chem.—J. V. Lakhani, M.Sc. Engl.—T. M. Advani, M.A., LL.B. Hist.—D. T. Mariwalla, M.A. Philos.—G. G. Kewalramani, M.A., LL.B. Maths.—A. L. Shaikh, B.A., B.Sc. Pers.—Hotchand M. Gurbaxani, M.A. 6 other Teachers.

KARACHI, Nadirshaw E. Dinshaw Civil Engineering College. Under control of the Sind Collegiate Board. Principal, and Prof. of Engin.—G. N. Gokhale, B.Sc., A.M.I.E. Vice-Principal, and Prof. of Struct. Engin.—S. B. Junnarkar, B.Sc. Lond. Engin.—M. H. Advani and 8 other Teachers.

Karachi, Law College. Under control of the Sind Collegiate Board. Principal—Charles M. Lobo, B.A., LL.B. 9 other Profs.

Kolhapur, Rajaram College (State). In Arts (up to B.A. Hons.) and in Science for Inter. Sci. Principal, and Prof. of Hist. and Econ.—Balkrishna, M.A. Panj., Ph.D. Lond. 12 other Profs., etc.

Nasik, H.P.T. College. In Arts. Under control of the Gokhale Educn. Soc. Principal, and Prof. of *History*—T. A. Kulkarni, B.A. 8 other Profs.

POONA, Deccan College (Govt.). In Arts; in Science for Inter. Sc. Course. Principal, and Prof. of Engl.—H. G. Rawlinson, M.A. Camb. Other Profs.: Engl.—E. A. Wodehouse, M.A. Hist. and Econ.—G. B. Jathar, B.A. Camb., M.A. Edin. and Bom. Pers.—A. K. S. Shaikh, M.A. Sansk.—S. K. Belvalkar, Ph.D. Harv., M.A. 7 other Teachers.

POONA, Fergusson College. In Arts; in Science for B.Sc. Under control of the Deccan Educn. Soc. Principal, and Prof. of Maths.—G. S. Mahajani, B.A. Other Profs.: Bot. and Zool.—Dhundiraj L. Dixit, B.A.; T. G. Yeolekar, M.A., B.Sc. Chem.—G. B. Kolhatker, M.A.; M. K. Joshi, M.A.; D. D. Karve, Ph.D. Engl. and Sansk.—V. G. Paranjpye, D.Litt. Paris, M.A.,

LL.B. Engl. and Marathi—G. V. Tulpule, M.A. Engl.—Ganesh H. Kelkar, B.A. Camb., M.A. German—Krishnaji K. Joshi, M.A., Ph.D. Würz. Hist. and Pol. Econ.—D. G. Karve, M.A. Hist.—S. R. Kanitkar, M.A. Logic, etc.—V. K. Joag, M.A. Maths.—V. B. Naik, M.A.; G. S. Mahajani, M.A. Philos.—N. G. Damle, M.A. Sansk., Pali, etc.—N. G. Suru, M.A. Pers.—B. D. Verma, M.A. Allah. 17 other Teachers.

Poona, Agricultural College (Govt.). In B.Ag. courses. A College Diploma course is also provided. Principal, and Prof. of Botany—W. Burns, D.Sc. Agric. Econ.—P. C. Patil, R.B., M.Sc. Chem. and Geol.—D. L. Sahasrabuddhe, R.B., M.Sc., M.Ag. Agric.—V. G. Gokhale, L.Ag. Entom.—T. N. Jhaveri. Hort.—G. S. Cheema. Agric. Engin., etc.—J. P. Trivedi, L.C.E. 21 other Teachers.

POONA, College of Engineering (Govt.). In Engin. (Civ. and Mech.) courses. Principal, and Prof. of Engin.—C. Graham Smith, O.B.E., V.D., A.C.G.I., Other Profs.: Struct. Design.—H. P. Jordan, M.Sc. Elec. Engin.—Shiv Narayan, M.A., B.Sc. Panj., M.Sc., B.E. (Union U.S.A.), M.A.I.E.E. Civil Eng.—P. G. Dani, B.A. Bom., B.Sc. Lond., A.C.G.I., A.M.Inst.C.E. Chem. and Geol.—G. G. Narke, M.A. Calc., M.Sc. Manc. Mech. Engin.—A. David, B.Sc., M.E., A.M.I.E. 7 Lectrs.

POONA, Sir Parashurambhau College. In Arts; in Science for B.Sc. Under control of Shikshana Prasarak Mandali. Principal, and Professor of Econ. and Hist.—R. P. Sabnis, M.A. Camb. Other Profs.: Engl. and Sansk.—R. D. Karmarkar, M.A. Engl.—R. K. Lagu, M.A. Maths.—T. B. Hardikar, M.A. Philos.—N. G. Naralkar, M.A., L.T.; S. V. Dandekar, M.A. Marathi—D. V. Potdar, B.A. Physics — M. R. Paranjpye, M.A., B.Sc. 11 other Teachers.

POONA, Poona Law College. Under control of the Indian Law Society. Principal—J. R. Gharpure, B.A., LL.B. (Hons.). 8 other Profs.

SANGLI, Willingdon College. In Arts. Under control of the Deccan Educn. Society, Poona. Principal and Prof. of Hist. and Econ.—P. M. Limaye, M.A. 8 other Profs.

SURAT, M.T.B. College. In Arts. Under control of Sarvajanik Educn. Soc., Surat. Principal, and Prof. of Maths.—N. M. Shah, M.A. Camb. 14 other Profs.

## THE YEAR 1930-31

New Ordinances and Regulations. Ordinances 214 and 215 relating to the B.T. Examn. amended to permit candidates to appear for Part I. and Part II. of the Examn. simultaneously. Ordinance 217 amended to admit students of other Univs. who have passed an examn. equivalent to the Interm. Examn. in Commerce to the B.Com. classes of a college affiliated to this Univ. Theses for the M.A. and M.Sc. degree can now be submitted 3 times a yr., viz., up to June 7, up to Sept. 14, and up to Feb 14. Regns. relating to the course of studies and the different papers in Sanskrit, Pali and Ardha-Magadhi for the B.A. and M.A. Examns. have been altered. The syllabus in English for the B.A. Examn. has been revised. Regns. laying down the detailed syllabus in Human Anat. and Embryol. for the B.Sc. Examn. were passed by the Academic Council. Candidates intending to offer Physiol. and Anat. for the B.Sc. Examn. are now given concessions, if they have passed their 1st or the 2nd M.B.B.S. Examns. by Regulns. 106 and 107. The syllabus in Kannada for the M.A. Examn. has been revised. Regns. relating to the Language test for

candidates for the M.Sc. amended. The No. of compulsory exercises in Engl. Composition for students in the F.Y. Class reduced to 9. The minimum percentage of marks necessary for 2nd Class Hons. at the B.A. Examn. increased from 40 to 45. Candidates for Hons. in one lang. at the B.A. who fail to obtain a Pass degree are no longer compelled to keep terms in order to appear for a subsequent examn. for the Pass degree in Languages.

Honorary Degrees. *LL.D.*—Rt. Hon. Sir Dinshah F. Mulla, C.I.E.; Sir Chandrasekhara Venkata Raman, M.A., Ph.D., D.Sc., F.R.S.; Sir M. Visvesvaraya, K.C.I.E., D.Sc., M.I.C.E., and Shams-ul-Ulema Sir Jivanji J. Modi, C.I.E., Ph.D.

VISITORS. Sir Arthur Salter, Director of the Finance Section of the League of Nations, lectured on "India and the League of Nations."

RETIREMENTS AND DEATHS. The Hon. Mr. Justice Mirza Ali Akbar Khan as Vice-Chancellor of the Univ., resigned April 18, 1931, on his departure for England. The Rev. John McKenzie, M.A., was appointed Vice-Chancellor in his place. Mr. D. J. Wadia (Registrar) resigned his appointment in September 1931 owing to ill-health. DEATHS: The Rev. Father Zimmermann, Mr. S. C. Shahani (late Principal of the D. J. Sind Coll.), and Mr. A. J. Turner (former Principal of the V. J. Technical Institute) (Fellows of the Univ.).

Students. Full-time: 11,926, including 1450 graduates. Part-time: 1018, including 600 graduates.

DEGREES. B.A., 840; M.A., 84; B.Com., 56; M.Com., 1; B.T., 59; B.Sc., 321; M.Sc., 26; B.Ag., 53; B.E. (Civil), 86; B.E. (Mech.), 3; LL.B., 428; LL.M., 3; M.B., B.S., 111; B.Hy., 4; M.D., 7; D.Hy., 1; D.O., 2.

## UNIVERSITY OF CALCUTTA

CHANCELLOR-H.E. THE GOVERNOR OF BENGAL.

VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE—Dr. HASSAN SUHRAWARDY, O.B.E., M.D., F.R.C.S.I., D.P.H.

President, Post-Graduate Council—Prof. Pramathanath Baner-Jea, M.A., D.Sc. (Arts); Sir Nilratan Sircar, Kt., M.A., M.D., LL.D., D.C.L. (Science).

REGISTRAR—A. N. MUKHERJEE, M.A., Ph.D.

CONTROLLER OF EXAMINATIONS-N. N. SEN, M.A., B.Sc.

INSPECTOR OF COLLEGES—H. C. MOOKERJEE, M.A., Ph.D.

SECRETARIES TO THE COUNCILS FOR POST-GRADUATE STUDIES: in Arts—S. C. Ghosh, M.A., Offg.; in Science—H. C. Banerjee, M.A., B.L.; S. K. Acharyya, M.Sc., Offg.

## UNIVERSITY PROFESSORS

Agriculture

Ganguli, N. N., C.I.E., B.Sc. Illinois, Ph.D. Lond.

G. P. Singh Prof.

Art: Indian Fine Arts

Prof.

Botany

Agharkar, S. P., M.A., Ph.D. Berlin Sir R. B. Ghosh Prof.

Chemistry

Ray, Sir P. C., Kt., C.I.E., D.Sc. Lond., Ph.D., F.C.S.

Sir T. N. Palit Prof.

Mitter, P. C., M.A., Ph.D. Berl. Sir R. B. Ghosh Prof.

Sen, H. K., M.A., D.Sc. Lond. Sir R. B. Ghosh Prof. of Applied C.

Mookerjee, J. N., D.Sc. Lond. G. P. Singh Prof.

Economics

Banerjea, P. N., M.A., D.Sc. Lond.
Minto Prof.
Ray, S. C., M.A.
Prof.

English

Banerjee, J. G., M.A. Prof. Maitra, H. C., M.A. Prof. Banerjea, J. R., M.A., B.L. Prof. History and Culture, Ancient Indian

Bhandarkar, D. R., M.A., Ph.D. Carmichael Prof.

History, Mediæval and Modern Indian

Sen, S. N., M.A. Ph.D., B.Litt. Ox. Prof.

Indian Vernaculars

Sen, Rai Bahadur, D.C., B.A., D.Litt. Prof.

Islamic Studies

Siddique, Mahammad Zubair, M.A., Ph.D. Asutosh Prof. Mathematics

Prasad, Ganesh, D.Sc. Lond. (Higher M.) Hardinge Prof. Mookerjee, S. D., M.A., Ph.D.

Prof.

Sen, N., D.Sc. (Applied M.)
Sir R. B. Ghosh Prof.
Mental and Moral Science

Radhakrishnan, Sir S., M.A., D.Litt.

George V. Prof. (on leave). Haldar, H. L., M.A., Ph.D.

George V. Prof. Urquhart, W. S., M.A., D.Litt.

Prof.

Pali

Barua, B. M., M.A., D.Litt. Lond. Prof.

Phonetics and Indian Linguistics Chatterjee, S. K., M.A., D.Litt. Lond. G. P. Singh Prof.

**Physics** 

Raman, Sir C. V., Kt., M.A., D.Sc., Ph.D. Freib., LL.D., F.R.S. Palit. Prof.

Bose, D. M., M.A., Ph.D. Berlin Sir R. B. Ghosh Prof. Ghosh, Phanindranath, M.A., Ph.D., D.Sc. Lond. Sir R. B. Ghosh Prof. of

Sir R. B. Ghosh Prof. of Applied P.

Mitra, S. K., D.Sc.

G. P. Singh Prof.

Physiology [Prof.
Mahalanobis, S. C., B.Sc., F.R.S.E.

Sanskrit

Sastri, Mahamahopadhyay Bhagabatkumar, M.A., Ph.D. Asutosh Prof.

Zoology Das, B. K., D.Sc. Prof.

Post-Graduate Teachers in Arts. Economics, 23; English, 17; History, including History and Culture, Ancient Indian, 30; Indian Vernaculars, 21; Mathematics, Pure, 12; Sanskrit, 23; Pali, 10; Persian and Arabic, 8; Philology, Comp., 3; Philosophy, 18; Psychology, Expl., 7; Anthropology, 9; Commerce, 22.

POST-GRADUATE TEACHERS IN SCIENCE. Botany, 4; Chemistry, 17; Geology, 4; Mathematics, Applied, 9; Physics, 18; Physiology, 6; Zoology, 6.

UNIVERSITY LAW COLLEGE. Principal—S. C. Bagchi, B.A., LL.B., LL.D. Vice-Principal—B. M. Majumdar, M.A., B.L. Professors: C.P. Code and Evidence—Birajmohan Majumdar, M.A., B.L., and 3 others. Crim. L.—4. Equity—The Principal and 3. Hindu L. and Const. L.—J. P. Sarbadhikary, M.A., B.L., and 6. Jurispr. and Roman L.—Karunamay Basu, M.A., B.L., and 6. Land Laws—4. Real Property, Contracts and Torts—S. C. Roy, B.A., LL.B., and 7. T.P. Act, Mahom., and Pers. L.—Mukundanath Roy, M.A., B.L., and 6.

## GENERAL INFORMATION

Founded in 1857, this Univ. has been mainly an examining body, but has provided facilities for research since 1893 (when the Premchand Roychand Endowment was applied to this purpose), and post-graduate teaching since 1909. In 1917 a new scheme for post-graduate teaching came into operation under which all students who desire instruction in the M.A. or M.Sc. courses in Calcutta must be registered in the Senate House as Univ. students. A Commission—Chairman, Sir Michael Sadler, K.C.S.I.—appointed in Sept. 1917, presented a comprehensive report and a series of important recommendations in March 1919. Teaching in all the subjects for the B.Com. examn., including French, German, and other modern languages, Arabic, Pali, Persian, Tibetan, Chinese, and Japanese, is provided by the Univ.

Government grants from 1912 to 1930 amounted to Rs. 64,99,078, including Rs. 7,02,415 for endowment of chairs, and Rs. 14,61,666 for Hostels and a Students' Mess Scheme. During the same period private benefactions

amounted to Rs. 62,79,400.

The Univ. buildings (expenditure on which from 1912 to 1929 amounted to Rs. 38,07,111) include a Senate House, the Durbhanga Library with Law College, Hostel, and Univ. offices (Rs. 12,00,000), the Univ. Press, the Asutosh Building (Rs. 10,25,111) for post-graduate classes in Arts, post-graduate offices and lending library, and two palatial buildings for the teaching of post-

graduate Science courses. Laboratories (in Univ. Coll. of Science): Phys. and Chem. (Pure and Applied), Applied Maths., Expl. Psych., Biol., Agric., Geol., etc.

FACULTIES. Arts, Science, Law, Medicine, Engineering. The Affiliated Institutions (v. infra) include Colleges of Law (Calcutta—Ripon and Univ.—Gauhati), Medicine (Belgachia and Calcutta), Engineering (Sibpur), and Teaching (Calcutta—David Hare and Diocesan).

DEGREES, ETC. B.A., M.A., Ph.D.; B.Sc., M.Sc., D.Sc.; B.Com.; B.T.; B.L., M.L., D.L.; M.B., M.D., M.S., M.O., D.P.H.; B.E., D.Sc. (Engin.).

STUDENTS' WELFARE. Principals of Colls. and specialists in physical edn. deal with all matters relating to the health of students, including physical education and organization of games and other forms of recreation. Military Training is provided for a Univ. Corps recruited from affiliated colleges. All 1st yr. students in Calcutta Colls. are examined. At the Hardinge Hostel for Law students the monthly charges amount to from Rs. 24 to Rs. 26.

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Publications. Calendar, Rs. 7.8; Univ. Regulations, Rs. 3.12; Proceedings of Councils of Post-graduate Teaching, 1918–1927, Rs. 3 each year; Convocation Addresses, 1915–1923, Rs. 5, 1858–1923, Rs. 10; Calcutta Review, monthly, annual subsn., Rs. 7 inland, Rs. 10 foreign; Journals of Depts. of Letters and of Science, Rs. 9 per vol.; Sir Asutosh Mookerjee Silver Jubilee volumes—vols. i., ii., and vol. iii. in 3 parts, Rs. 11-4 each; Bulletin of Math. Society, etc. Other publications (about 200 vols.) on Ancient Indian Culture, History, Philosophy, Law, Economics, Mathematics, Language, and Science.

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Belgachia, Carmichael Medical College. M.B. Principal—Kedarnath Das, C.I.E., M.D. Profs.: Anat.—M. N. Bose, M.B., C.M. Edin. Physiol.—S. C. Mahalanobis, B.Sc., F.R.S.E. Mat. Med. and Pharmac.—P. Nandi, M.D. Midw.—K. N. Das, C.I.E., M.D.; N. Basu, L.M.S. Surg.—M. Mitra, M.D. Brux., F.R.C.S. Edin. Med.—B. C. Roy, M.D., M.R.C.P., F.R.C.S. Eng. Jurispr.—Major B. G. Mallya, I.M.S. Op. Surg.—L. M. Banerjee, M.S. Calc., F.R.C.S. Eng. (on leave); Actg. Prof. Dr. Subodh Datta, M.B. Cal., F.R.C.S. Edin., L.M. Dub. Opth. Surgery—M. N. Chatterjee, M.B. Pathology—Charuchandra Bose, M.B. Hygiene—T. N. Majumdar, D.P.H. 50 other Teachers.

BERHAMPUR, Krishnath College. B.A. and B.Sc. Principal and Prof. of Maths.—Baikunthachandra Ray, M.A. 31 other Teachers.

BHOWANIPUR, Asutosh College. B.A. and B.Sc. Principal, and Prof. of Econ.—Panchanan Sinha, M.A., B.L. 30 other Teachers.

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CALCUTTA, David Hare Training College (Govt.). B.T. Principal—Rai Shaheb N. Mitra, B.A., B.T. Dipl. in Edn. Ox. Profs.: Binayabhusan Sarkar, B.A., B.T.; K. D. Ghose, B.A. Ox.; G. C. Dasgupta, B.A., B.T.; S. C. Chakravarty, M.Sc., B.T.

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T. Sur, M.D. (Offg.) Physics—T. D. Kar, M.A. Physiol.—Lt.-Col. A. C. MacGilchrist, M.A., M.D., D.Sc., M.R.C.P., I.M.S. (Retd.). Surg.—Lt.-Col. W. L. Harnett, M.A., M.D., F.R.C.S., I.M.S. (Offg.) Surg., Clin. Operative—L. M. Banerjee, M.S., F.R.C.S., L.R.C.P. 29 other Teachers.

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CALCUTTA, Sanskrit College. B.A. Principal, and Prof. of Philos. and Logic—S. N. Das Gupta, Ph.D. Lond. and Cal., M.A.

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Bengal. A 3 mos.' (July-Oct.) course for medical officers and other practitioners leads to a certificate granted by the same authority. A 9 mos.' course (Oct.-July) for medical graduates leads to the D.P.H. of the University of Calcutta and of other examining bodies.

Research Departments—Dermatol., Spirochætosis, Calcium contents Inquiry, Tuberculosis, Indigenous Drugs, Drug Addiction, Hookworm, Kala-azar, Diabetes, Filariasis, Leprosy, Radiology, Bowel Diseases, Standardization work in Indian Food Stuffs, Beri-Beri Research and Kurchi Alkaloid Inquiry.

Director: Lt.-Col. H. W. Acton, M.R.C.S., L.R.C.P., I.M.S., Prof. of Pathol. and Bacteriol. and Helminth. Assist. Director: Dr. R. T. M. Hayter, I.M.D. Other Profs.: Lt.-Col. A. D. Stewart, M.B., F.R.C.S.E., D.P.H., D.T.M. & H., I.M.S.; Lt.-Col. R. Knowles, B.A. Camb., M.R.C.S., L.R.C.P., I.M.S.; Lt.-Col. R. N. Chopra, M.A., M.D. Camb., I.M.S.; Lt.-Col. R. B. Lloyd, M.A., M.B., B.Ch. Camb., I.M.S.; Dr. C. Strickland, M.A., M.D., B.Chir. Camb.; Dr. Sudhamoy Ghosh, M.Sc. Cal., D.Sc., F.R.S. Edin., F.C.S. Lond.; Dr. Sivapada Bhattacharyya, M.D. Cal., Offg.; Dr. R. B. Khambata, M.R.C.S., L.R.C.P., D.P.H. 12 Assistant Profs. and Lectrs.

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CALCUTTA, *Vidyasagar College* (formerly Metropolitan Institn.). B.A., B.Com., and B.Sc. Principal, and Prof. of *Engl. Lit.* and *Philos.*—J. R. Banerjea, M.A., B.L. 68 other Teachers.

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B.Sc. Principal—D. Thomson, M.A., B.Sc., Ph.D. Profs.: Engl.—P. G. Abraham, M.A. Ox.; Praphullachandra Ray, M.A.; Asutosh Chatterjee, M.A.; S. K. Bhuyan, M.A., B.L.; B. K. Kakoti, M.A. Physics—S. N. Chatterjee, M.A. Chem.—J. M. Dutta, M.A.; S. C. Chatterjee, M.Sc. Maths.—Harshanath Sen, M.Sc. Philos.—R. R. Thomas, M.A. Sansk.—L. N. Chatterjee, M.A., V.S. Arabic and Persian—S. Md. Mahibullah, M.A. Economics—A. E. Brown, M.A., LL.B. Camb. Hist.—B. C. Sen Gupta, M.A.; B. M. Sen, M.A. 12 other Teachers.

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HETAMPUR, Krishna Chandra College. B.A. Principal—B. C. Sengupta, M.A., B.L. 8 other Teachers.

Hughli College. B.A. and B.Sc. Maintained by Govt. Principal, and Prof. of *Hist.*—K. Zachariah, M.A. Ox. Vice-Principal, and Prof. of *Physics*—P. C. Bhattacharyya, M.A. 19 other Teachers.

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RAJSHAHI, Government College. B.A. and B.Sc. Principal—Hemchanda De, M.A. 40 other Teachers.

RANGPUR, Carmichael College. B.A. and B.Sc. Principal, and Prof. of Phys. and Maths.—D. N. Mallik, B.A. Camb., Sc.D. Dub., B.Sc. Lond. 29 other Teachers.

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Prabhatkumar College, Contal. I.A. Principal, and Prof. of Maths.—Nepalchandra Ray, M.A. 4 other Teachers.

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St. Joseph's College, Calcutta. Int.A., Int.Sc. Principal—Rev. Br. P. F. Lillis. 5 other Teachers.

UTTARPARA COLLEGE. Int.A., Int.Sc. Principal, and Prof. of *Physics*—Dhrubakumar Pal, M.A., B.Sc., B.L. 7 other Teachers.

Victoria College, Narail. Int.A., Int.Sc. Principal, and Prof. of Engl.—Gopalchandra Maitra, M.A. 6 other Teachers.

## THE YEAR 1930-31

BENEFACTIONS. For scholarships, medals, etc., Rs. 6500.

New Posts. The Ramtanu Lahiri Research Fellowship raised to a Professorship in Bengali.

CHANGES IN REGULATIONS. Changes in the English, Arabic, and Persian Courses for the M.A. Examn. sanctioned. Changes in practical papers in Anthropol. for the B.A. and B.Sc. Examn. sanctioned. Changes in the course in Geol. for the B.E. Examn. sanctioned. Certain additions to the Regulns. for the 3rd and Final M.B. Examns. Changes in the L.T. and B.T. Examns. sanctioned. Malayalam, recognized as a 2nd Lang. for Female Candidates, for the Matricn. Examn. Manipuri, recognized as a Vernacular, for the Interm. Examns. Provision for a separate Higher Board of Study in Applied Physics sanctioned.

EXTRA-MURAL WORK. Mr. Nibaranchandra Ray, M.A., Prof. of Physics in the Scottish Church Coll., and Dr. Kuleschandra Kar, D.Sc., Lectr. in Physics in the Presidency Coll., Calcutta, appointed Extra-mural Lectrs. for Session 1931–32.

VISITS OF TEACHERS FROM OTHER UNIVS. The following visitors lectured: Dr. A. D. Lindsay, Master of Balliol Coll., Oxford, on the "History of Socrates and Plato's Idea of God"; Prof. W. Blaschke (Univ. of Hamburg), on "The Origin and Development of Affine Geometry"; Dr. Arnold D. McNair, C.B.E., LL.D., Fellow of Caius Coll., Cambridge, and Lectr. in Law of Cambridge Univ., on "British Air Law"; Sir Arthur Salter, on "India and the League of Nations"; Sir P. S. Sivaswamy Iyer, K.C.S.I., C.I.E., on "The Evolution of Moral Ideals in India."

VISITS OF MEMBERS OF THE UNIVERSITY TO EUROPE. The following were appointed delegates and representatives to attend the Congress of Universities of the British Empire at Edinburgh: *Delegates*—Dr. Hassan Suhrawardy, O.B.E., M.D., F.R.C.S.I., D.P.H., Vice-Chancellor; Prof. Sir S. Radhakrishnan, Kt., M.A., D.Litt. *Representatives*—Mr. A. Macdonald, M.A., B.Sc.; Sir Bhupendranath Mitra, K.C.S.I., K.C.I.E., C.B.E.

RETIREMENT. Rai Jnanchandra Ghosh, Bahadur (Registrar).

DEATHS. S. Khuda Bukhsh, M.A., B.C.L., and Mahendranath Banerjee, C.I.E., B.A., M.R.C.S., Ordinary Fellows.

Honorary Degrees. D.Sc.—Sir Rajendranath Mukherjee, K.C.I.E., K.C.V.O., M.I.M.E. D.Litt.—Principal Herambachandra Maitra, M.A. M.D.—Dr. C. A. Bentley, M.B., D.P.H., D.T.M. & H.

STUDENTS. Arts, 805 (all Graduates); Science, 171 (all Graduates).

DEGREES (1930). Ph.D., 3; D.Sc., 2; M.A., 267; M.Sc., 120; B.A., 1547; B.Sc., 437; B.Com., 67; B.T., 77; M.L., 1; B.L., 509; M.B., 152; B.E., 27.

# UNIVERSITY OF DACCA

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Visitor—H.E. The Governor-General of India.

CHANCELLOR—H.E. THE GOVERNOR OF BENGAL.

VICE-CHANCELLOR—Prof. G. H. LANGLEY, M.A.

Reader.

TREASURER—K. SHAHABUDDIN.

Registrar—Khan Bahadur Naziruddin Ahmad, M.A.

LIBRARIAN-M. RAY, M.A.

#### PROFESSORS, LECTURERS, ETC.

Arabic and Islamic Studies
Fück, J. W., Ph.D. Frank. Prof.
Hossain, S. M., M.A., D.Phil. Ox.

Reader.
Israelv. Md. S.
Lectr.

Israely, Md. S. Lectr.
Ali, Munawar Lectr.
Taufiq, M. A., M.A. Panj., M.O.L.

Panj. Lectr.

Khalid, A. O., M.A., B.L. Calc. Lectr.

2 Asst. Lectrs.

Chemistry

Ghosh, J. Č., D.Sc. Calc. Prof. Chowdhury, J. K., M.A. Calc., Ph.D. Berl.

(Analytical C.) Reader. Sarkar, S. S. G., D.Sc. Lond.

Lecturers:

De, R. L., M.Sc. Calc. Purkayastha, R. M., M.Sc. Calc. Basu, K. P., M.Sc. (on leave).

Sarma, J. C., M.Sc. Calc. (tempy.). 7 Asst. Lectrs.

Commerce

Junnarkar, P. B., M.A., LL.B. Bom. (Acctcy. and Business Organizn.) Reader.\* Rallan, S. R., B.Com. Birm. Lectr. 1 Asst. Lectr., 2 Pt.-time Lectrs.

Economics and Politics [Reader.\* Sinha, J. C., M.A., Ph.D. Calc.

Banerjee, D. N., M.A. Calc. Reader.
Ayyar, S. V., M.A. Mad. Lectr.
Shaha, K. B., M.A. Calc. Lectr.
Dam, M. L., M.A. Calc. Lectr.
Sen, A. K., M.A. Calc. Lectr.
5 Asst. Lectrs.

Education

West, M. P., M.A., D.Ph. Ox. (on leave) Hon. Reader.\* Bhattacharya, G., B.T. Calc. (Offg.).

6 Hon. Teachers.

English

Prof. Hasan, M., M.A. Calc., B.A. Ox. Reader.\*
Roy, S. N., M.A. Calc., Ph.D. Lond.
Reader.

Lecturers:

Guha, P. K., M.A., B.L. Calc. Ray, B. K., M.A., B.L. Calc. Chanda, S. M., M.A. Calc., B.A. Ox.

Chaudhury, J. N., M.A. Calc. 3 Asst. Lectrs.

History

Majumdar, R. C., M.A., Ph.D. Calc. Prof.

Readers:

Qanungo, K. R., M.A. Calc. Sarkar, S. C., M.A. Calc., B.A. Ox.

Head of Department.

Bhattacharyya, S. N., M.A. Calc. Lectr. Sen, J., M.A. Lectr.

2 Asst. Lectrs.

Law[Prof.\* Ghose, N. N., M.A., B.L. Calc. Lecturers: Das Gupta, J. N., M.A., M.L. Calc.

Dutta Gupta, A. K., M.A., B.L.

Calc. Pal, N. C., M.A., B.L. Calc.

5 Part-time Lectrs.

#### Mathematics

Basu, N. M., D.Sc. Calc. Prof. Vijayaraghavan, T., D.Phil Ox.

Reader. Ganguly, D. N., M.A. Calc. Lectr.

Sircar, H., D.Sc. Calc. Lectr. Mitra, S. C., M.A., Ph.D. Calc. Lectr.

I Asst. Lectr.

Persian and Urdu Khan, F. A., M.A. Calc. Reader.\* Azad, S. M. Z. H., B.A. Panj. Lectr.

Shadani, W. H. A., M.A., M.O.L. Pani. Lectr. I Asst. Lectr.

[Reader.\* Philosophy Bhattacharyya, H., M.A. Calc. Gupta, U. N., M.A. Calc. Ahmed, M., M.A. Lectr. 3 Asst. Lectrs.

**Physics** 

Bose, S. N., M.Sc. Calc. Prof. Krishnan, K. S., M.Sc. Mad.

Reader. Khastgir, S. R., D.Sc. Calc. Reader. Guha, B. C., M.Sc. Calc. 7 Asst. Lectrs.

Sanskrit and Bengali

Prof. De, S. K., M.A., B.L. Calc., D.Lit. Lond. Reader.\*

Lecturers:

Basak, R. G., M.A. Calc. Bhattacharyya, G. P., M.A. Calc. Shahidullah, M., M.A. Calc., D. ès L. Paris.

Bandyopadhyaya, C. C. L., M.A. Mazumdar, M.L., B.A. Calc. 3 Asst. Lectrs.

\* Head of Department.

Associated College. Teachers' (Govt.) Training College, Dacca. The Principal and teachers are recognized teachers of the Univ. and the College students read for the L.T. and B.T. in accordance with regns. prescribed on that behalf.

#### GENERAL INFORMATION

This Univ. was established in 1921 under an Act of 1920, which provides for the constitution of Faculties of Arts, Science, Law, Agriculture, and Medicine. Special attention is devoted to Islamic Studies and to the needs of the Musalman community, but the Univ. is open to all, without distinction of sex, race, creed, or class. It is a unitary and residential Univ., with a constitution resembling in many respects that of the modern English universities. The Authorities of the Univ. include a Court, an Executive Council, an Academic Council, and Faculties; and the Teaching Staff has the main responsibility for all matters connected with teaching and examns. The students (other than those living under specially approved conditions) reside in Halls and Hostels, and the Univ. teachers in houses erected for them, in the Univ. domain. The domain consists of about a square mile of fine park land, including over 100 acres of playing fields. It is adjacent to the Civil Station of Dacca and to a park called the Ramna, and lies from I to 11 miles north-west from the centre of Dacca City. It is provided with electric light and power.

The chief buildings for teaching and administrative purposes include: Central buildings, containing about 200 rooms (area 94,000 sq. ft.), used for Class-rooms and Library (at present utilized partly as a hostel for Muslim students); Chemical and Physical Laboratories (area 26,500 sq. ft.); the Curzon Hall (which accommodates about 2000 persons); the Dacca Hall residence for 160 students; the Jagannath Hall for 200 students; and the Salimullah Muslim Hall for 296 students.

LIBRARY, 59,762 vols., and more than 17,000 MSS. in Sanskrit, Bengali, Urdu, Persian, and Arabic. Annual Library grant, Rs. 20,000. LABORATORIES: Physical, with metal and wood workshops; Chemical, with special arrangements for training in commercial analytic methods; and Psychological.

FACULTIES. Arts, Science, Law.

Admission. The standard required for admission to courses leading to degrees is that of the Intermediate examn. of an Indian Univ.

DEGREES, ETC. The duration of the courses of studies prescribed is as follows: for B.A. or B.Sc. ordinary, 2 yrs., with Honours, 3 yrs.; Diploma in Practical English, 1 yr.; M.A. or M.Sc., 2 yrs., or in the case of a Dacca Honours B.A. or B.Sc., 1 yr.; B.T. or L.T., 1 yr.; M.T., 3 yrs.; B.Com., 2 yrs.; B.L., 3 yrs. (All. M.A. and Dacca Honours B.A., 2 yrs.); M.L., 3 yrs. The Ph.D., D.Sc., or D.L. are open to graduates of 3 yrs.' standing, but graduates of other Univs. must pursue researches in this Univ. for 2 yrs.; published research work required.

Scholarships open to graduates: 3 of Rs. 40 each p.m., 12 of Rs. 30, 2 of Rs. 30 (for backward classes only), 2 of Rs. 30 for Muhammadans and backward classes, 2 of Rs. 25 (Muhammadans only). Law Scholarship of Rs. 50 (open to Law graduates). Research studentships: 1 of Rs. 100 p.m. and 10 of Rs. 75.

FEES. Tuition, per session; for B.A., B.Sc., or B.L. course, Rs. 96; for B.Sc. with Honours in Physics and Chemistry, Rs. 120; M.A., Rs. 120; M.Sc., Rs. 144; Diploma Course in Practical English, Rs. 60; Registration, R. 1; Admission, Rs. 5; Athletic, Rs. 5; Students' Union, Rs. 3.8; Research students, Rs. 10; Enrolment of Registered Graduates, Rs. 5; Enrolment of Registered Graduates for Life, Rs. 25. HOSTELS: Seat-rent varies from Rs. 2 to Rs. 4 p.m., including cost of light, water, medical attendance, medicine, and servants. Cost of food about Rs. 12 p.m.

Tutorial Classes have been organized for all the Depts, of Study. All the teachers of the Univ. are engaged in the work under the control of the Heads of the Depts, and the Provosts.

Publications. General Information Pamphlet (May); Annual Report (July); Bulletins; Calendar (every 3rd yr., next issue Sept. 1932).

# THE YEAR 1930-31

Benefactions. From Mrs. Sarat Kamini Devi, a 3½ % G.P. Note (face value Rs. 1000) for a gold medal, called the "Nilkanta Sarkar Gold Medal," to the student obtaining the highest number of marks at the B.A. Hons. Examn. of each year. From Mr. K. Shahabuddin, Treasurer of the Univ., a stipend of Rs. 10 p.m. for a student of each of the three Halls for two sessions from 1931–32. From Mr. Salauddin, 2 stipends of Rs. 5 each p.m. for students of Salimullah Muslim Hall to be called "Nawabzadi Badsha Banoo Stipend" and "K. Mohiuddin Stipend."

NEW BUILDINGS. The Salimullah Muslim Hall completed.

OTHER DEVELOPMENTS. The University MSS. Committee (Bengali and Sanskrit Section) have already collected c. 17,500 valuable Sanskrit and Bengali MSS. The Arabic, Persian, Urdu, and Punthi MSS. Committee have collected 270 rare and valuable MSS.

CHANGES IN REGULATIONS. The first Examns, for the new M.A. courses will be held in 1935. The maximum period within which candidates must complete their B.A. and B.Sc. (Ord.) examns, extended from 5 yrs. to 6 yrs. In the Fac. of Sci. a new Hons, course in Maths. and Physics (with no subsidiary subjects) introduced with effect from the session 1931–32.

EXTRA-MURAL WORK. As in previous years, public lectures were delivered by members of the teaching staff of the University.

Visits. The sixth Indian Philosophical Congress was held at Dacca under the auspices of the Univ. on the eve of the Christmas holidays, 1930, with Prof. A. R. Wadia, B.A. Camb., offg. Director of Public Instruction, Mysore, as General President. The congress was opened by Hon. Mr. K. Nazimuddin, M.A., C.I.E., Minister of Education, Bengal. Almost all the Indian Univs. were represented, and a number of important papers were read.

STUDENTS. Full-time: total, 1121, including 524 graduates. Part-time: total, 196.

DEGREES. B.A. (Ord.), 117; B.A. (Hons.), 38; B.Sc. (Ord.), 35; B.Sc. (Hons.), 13; M.A., 57; M.Sc., 30; B.Com., 15; B.T., 79; B.L., 70.

# UNIVERSITY OF DELHI

CHANCELLOR—H.E. THE GOVERNOR-GENERAL OF INDIA.

PRO-CHANCELLOR—Hon. KHAN BAHADUR SIR FAZL-1-HUSAIN, K.C.I.E.

VICE-CHANCELLOR—KHAN BAHADUR MD. ARDUR BAHMON BA

VICE-CHANCELLOR—KHAN BAHADUR Md. ABDUR RAHMAN, B.A., LL.B. Panjab.

Treasurer—Rai Bahadur Ram Kishore, B.A., LL.B. Panjab. Registrar—N. K. Sen, M.A. Calcutta.

Appointed (\*) and Recognized Teachers of the University, for classes above Intermediate standard.

(S.), (H.), (R.), and (A.) denote St. Stephen's, Hindu, Ramjas, and Anglo-Arabic Colleges respectively.

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Arabic, Persian, and Urdu Rahman, A., Maulvi Fazil, Munshi Fazil (Hd. of Dept.) (S.). Verma, A. N., M.A. Calc. (H.). Ali, Syed Azhar, M.A., M.O.L., Munshi Fazil Panj. (S.). Lal, Piyare, Munshi Fazil Panj. (R.). Khan, Mohiudlin Ahmed, M.A. Alig. (S.). Qureshi, Ishtiaq Husain, M.A. (S.). Taban, Zafar, Munshi Fazil Panj. (R.). Syed, Mohd., Maulvi Fazil, Munshi Fazil Panj., Mulla Fazil All., Maulvi Qabil, Luckn. (A.). Musavi, Mansur Husain, M.A. All.	Shamji, M., M.A. (R.).  English and History Young, C. B., M.A. Ox. (Hd. of Dept.) Bhattacharya, A., M.A. Ox. (H.). Monk, F. F., M.A. Ox. (S.). Capron, R. S., B.A. Camb. (S.). Dayal, S., M.A. Panj. (H.). Dave, M. J., M.A. Bom., Ph.D. Dub., D. ès L. (H.). Basu, P. K., M.A. Calc. (H.). Basu, P. K., M.A. Calc. (R.). Gupta, B. B., M.A. (R.). Winsor, F. G., M.A. Camb. (S.). Sen, S. K., M.A. Ox. (H.). Spear, T. G. P., B.A. Camb. (S.). Sarkar, K. M., M.A. Panj. (S.). Eyre-Walker, C., M.A. Ox. (A.). Lorimer, R. C., M.A. St. And.
Chemistry Laroia, B. D., B.A. Ox., B.Sc. Panj., Ph.D. Lond. Univ. Reader,* Head of Dept.  Economics Chablani, H. L., M.A. Bom. Univ. Reader,* Hd. of Dept. Ghosh, H. C., M.A. (R.). Narain, Hirde, M.A. (H.). Nag, K. C., M.A. (S.). Narain, Radhka, M.A. (H.). Mathur, Raj Narain, M.A. (H.).	Osmond, A. T., M.A. Agra (S.). Das, Ramsaran, M.A. (R.). Rai, Ganpat, M.A. Panj. (H.). Bhandari, D. B., B.A. Lond. (R.). Law Shahani, M. S., M.A. Ox. Lectr.* Swarup, B., B.A., LL.B. Panj. Lectr.* Rahman, Khan Bahadur Abdur, B.A., LL.B. Panj. Dean. 3 other Hon. Readers.

Mathematics [(R.).	Osmond, A. T., M.A. (S.). Tribe, J. W., B.A. Ox. (S.).
Lal, Avadh Behari, M.Sc. All. Bannerji, A. T., M.A. Calc. (H.).	Umaruddin, M. A., B.T. Alig.
Mitra, J. N., M.A. (R.).	(A.).
Mukerji, S. N., M.A. Panj., B.A.	Physics
Camb. (S.).	Ram, Khub, M.A. Panj., M.Sc.
Ram, Behari, M.A. Panj., B.A.	Leeds
Camb. (S.).	Univ. Reader,* Head of Dept.
Ram, Sri, M.A. Panj. (H.).	Sanskrit
Tribe, J. W., B.A. Ox. (S.).	Narain, Pandit M. M. Har, Shastri
Persian, v. Arabic	Panj. (H.).
Philosophy	Dhar, Lachhmi, M.A., M.O.L. Panj. (S.).
Sen, N. K., M.A. Calc.	Chaudhri, N. N., M.A. Panj. (R.).
Univ. Reader,* Hd. of Dept.	Kaul, K. N., M.A., M.O.L. Panj.
Mitra, C. C., M.A., B.L. Calc. (H.).	(H.).
Bannerji, N. V., M.A. Calc. (R.).	Sharma, Ganga Ram, B.A. (R.).
Leigh, M. S., M.A. Ox. (S.).	Urdu, v. Arabic
Sen, Indra, M.A. (H.).	0100, 1.111010

#### GENERAL INFORMATION

The three constituent colleges, formerly affiliated to the Univ. of the Panjab, were united to form a teaching and residential Univ. (Govt. of India Act, No. VIII. of 1922), with effect from May 1, 1922. Subsequently four Intermediate Colleges, three for boys and one for girls, were recognized as Constituent Colleges of the Univ., namely: The Anglo-Arabic, Ramjas Intermediate, Commercial, and Indraprastha (girls'). The Anglo-Arabic Coll. was recognized in 1930 for teaching up to the B.A. degree. The authorities of the Univ. are a Court, an Executive Council, an Academic Council, and Faculties and Boards of Studies. The Univ. does not itself hold a Matricn. Examn. As a temporary measure, it admits students who have passed the matricn. examns, of other Indian Univs. and recognized Boards.

 ${\tt Faculties}$  and  ${\tt Deans}$  : Arts, H. L. Chablani ; Science, Khub Ram ; Law, Khan Bahadur Abdur Rahman.

DEGREES. B.A. (Pass and Hons.), B.Sc., M.A., LL.B., LL.M., LL.D. A 2 yrs.' hons. course is offered in most of the Arts subjects.

AVERAGE HOSTEL EXPENSES, Rs. 20 p.m.

Publications. Calendar (published irregularly), Rs. 3; Courses of Reading; Question Papers; Annual Report and Annual Accounts; Minutes; Convocation Addresses by Chancellor and Vice-Chancellor.

# THE YEAR 1930-31

Benefactions. Pt. Raghubar Dayal Memorial Committee, Rs. 1000 for a gold medal.

DEATHS. Rai Bahadur Dr. Sir Moti Sagar, LL.D., Vice-Chancellor of the Univ. Mr. A. C. Bose, B.A., LL.B., Hon. Reader in Law, and sometime Dean of the Fac. of Law.

STUDENTS. Full-time: total, 1576, including 183 graduates.

DEGREES OBTAINED. B.A., 132; B.Sc., 21; M.A., 27; LL.B., 30.

# UNIVERSITY OF LUCKNOW

VISITOR—H.E. THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR-H.E. THE GOVERNOR OF THE UNITED PROVINCES OF AGRA AND OUDH.

VICE-CHANCELLOR-JAGAT NARAYAN, B.A.

TREASURER—S. M. HABIBULLAH, O.B.E., B.A., M.L.C.

REGISTRAR-R. R. KHANNA, M.Sc.

PROCTOR-J. A. STRANG, M.A., B.Sc.

HON. LIBRARIAN—WALI MOHAMMAD, M.A., Ph.D., I.E.S.

# PROFESSORS, LECTURERS, ETC.

#### King George's Medical College

Principal-Lt.-Col. H. Stott, O.B.E., M.D., B.S., M.R.C.P., D.P.H. Lond., I.M.S.

Anatomv

Nat, Capt. B. S., M.B., Ch.B. St. And., L.R.C.P. Lond., F.R.C.S. Eng., I.M.S. Goil, Capt. J. N., M.B., B.S. All. Lectr.

2 Demrs.

Forensic Medicine

Modi, J. P., R.B., L.R.C.P. & S Edin., L.F.P. & S. Glas. Reader.

Medicine

Burke, Lt.-Col. G. T., M.D., M.R.C.P. Lond., I.M.S. Prof. Sahai, H., M.B., B.S. Panj.

Lectr. and Regr.

Obstetrics and Gynæcology Buckley, Lt.-Col. H. C., M.D. Lond., F.R.C.S. Ed., I.M.S.

Siret, Miss A., M.B. Calc., L. M.

Rot., D.G.M. Dub. (Midwifery) Lectr.

Ophthalmology

Acharya, B. G. S., B.A., M.B., C.M. Madras, L.R.C.P. Lond., F.R.C.S. Edin., M.R.C.S. Eng., D.O. Ox. Prof. Misra, C. P., L.M.S. Panj. Lectr. Pathology

Stott, Lt.-Col. H., O.B.E., M.D., B.S., M.R.C.P., D.P.H. Lond., Prof.\* I.M.S.

Mukerji, Capt. J. G., R.B., L.M.S. Reader. Panj.

Hamid, M. A., M.B., B.S. All., M.D., M.R.C.P. Lond. Lectr. 2 Demrs.

Pharmacology

Vvas, B. N., R.B., M.B. Panj.

Reader.

Bhatia, B. B., M.D., B.S. Luck., M.R.C.P. Lond. Lectr. r Demr.

Physiology

Burridge, W., M.A., D.M., B.Ch. Prof. Mathur, S. N., M.B., B.S. All. Lectr. 2 Demrs.

Public Health

Pandya, D. D., R.B., L.R.C.P. & S. Edin., L.R.F.P. & S. Glas., D.P.H Camb. Trivedi, H. G.

(San. Engineering) Lectr.

Mathur, H. G. D., B.Sc., M.B.,
B.S. All., M.R.C.P. Edin.,
D.T.M. & H. Lond., D.P.H.
Johns Hopkins
(Hygiene) Lectr.
Radiology [Reader.
Lal, Ragunandan, M.B., B.S. Panj.
Surgery [Prof.
Bhatia, R. N., R.B., B.A., B.Sc. All.,
M.B. Panj., F.R.C.S. Edin.

Canning College

Nigam, K. S., M.D. All., F.R.C.S. Eng., D.T.M. Lond. Reader. Kacker, P. C., M.B., F.R.C.S. Edin. Lectr. and Regr. Kacker, R. N., M.B., B.S. Hon. Lectr. Pramanick, R. D., B.Sc., M.B., B.S. (Anæs.) Lectr. Goil, R. B., B.Sc. Ben., D.D.S. Atl. (Dentistry) Lectr.

# CANNING COLLEGE (ARTS AND SCIENCE)

#### Principal—S. B. Smith, M.A. Ox.

Wahid Mirza, Mohd., M.A. Panj., Ph.D. Lond. Reader. Khalil Mohd. Ibn Arab, Maulvi Lectr. Botany Sahni, Birbal, M.A., Sc.D. Camb., D.Sc. Lond., F.G.S. Mukerji, S. K., M.Sc. All., D.Sc. Lond., F.L.S. Reader. Chowdhury, H. P., M.Sc. Panj., D.I.C. Lectr. 2 Demrs. Chemistry MacMahon, P. S., M.Sc. Manc., B.Sc. Ox., F.I.C. Prof. Zaheer, Syed Husain, B.A. Ox., Ph.D. Heid. Reader. Sane, S. M., B.A., B.Sc. All., M.A., Ph.D. Berlin, F.C.S. Reader.

Economics

2 Demrs.

Arabic

Mukerjee, R. Kamal, M.A., Ph.D.
Calc. Prof.
Mukerji, B. B., M.A., B.L. Calc.
Reader.
Dey, H. L., M.A. Calc. Lectr.
Mukerji, D. P., M.A. Calc. Lectr.
Majumdar, D. N., M.A. Calc. Lectr.

Raman Nayar, M., B.A. Madras,

Chatterji, A. C., D.Sc. All. Lectr.

A.I.I.Sc. (Bang.)

English Sidhanta, N. K., M.A. Camb. and Prof. Brander, L. R. M., M.A. Edin. Reader. Reader. Rao, A. Vittal, M.A. Mad., Ph.D. Temp. Lectr. Lond. Roy, F. T., M.A. All. Lectr. Sreshta, R. R., M.A., LL.B. Camb. Lectr. Lectr. Roy, C. G., M.A. All. Bhattacharya, A. T., M.A. Ir. Lectr. Ameer Ali, Syed, M.A., B.L. Calc. Jr. Lectr. Jr. Lectr. Mitra, D., M.A. History, European Smith, S. B., M.A. Ox. Prof.\* Das Gupta, S. N., M.A. Lond. Lectr. History, Indian Mookerji, R. Kumud, M.A., Ph.D. Calc. Prof. Banerji, S. K., M.A., L.T. All., Ph.D. Lond. Reader. Chatterji, C. D., M.A. Calc. Lectr. Chatterji, N. L., M.A. All. Lectr. Mathematics [Prof.

Strang, J. A., M.A., B.Sc. Edin.

Narayan, Lakshmi, M.A., D.Sc.

Reader.

All.

Banerji, S., M.A. Calc. Lectr. Singh, A. N., M.Sc. All., D.Sc. Calc. Lectr.

Modern European Languages Iyer, K. A. S., M.A. Lond.

Lectr. in French. Persian and Urdu Rizavi, Syed M. H., M.A. Reader.

Abdul Qavi Fani, Md., M.A. All. Lectr.

Mosvi, Syed Y. H., M.A. Husain, S. Mohd., Mulla Fazil, M.A., LL.B. All.

(Urdu) Lectr.

Philosophy Sen Gupta, N. N., M.A., Ph.D. Harv. Prof. Ahmad Shah, E., M.A. All., B.Litt.

Reader. Kali Pershad, M.A., LL.B. All. Lectr.

Physics

Wali Mohammad, M.A. Pani., Ph.D. Gött., I.E.S. Prof.\* Deodhar, D. B., M.Sc. All., Ph.D. Lond. Reader. Ray, S. N., B.A., M.Sc. All., A.Inst.P. Lectr. Mathur, K. N., M.Sc. All. Lectr. I Demr.

Political Science

Ram, V. S., B.A. California, M.A., Ph.D. Harv. Reader. Menon, V. K. N., B.A. Mad., B.A. Lectr.

Asirvatham, E., B.A. Mad., B.D. U.S.A., Ph.D. Edin. Lectr. Sultan, Mohd., M.A. Jr. Lectr.

Sanskrit and Hindi

Iyer, K. A. S., M.A. Lond. Reader. Shastri, B. N., Pt. M.A. All. Lectr. Thakur, A. D., Pt. M.A. All. ,, Bhatt, B. N., Pt. B.A. All.

Lectr. (Hindi).

Zoology

Bahl, K. N., M.Sc., D.Sc. Panj., Ph.D. Ox. Prof.

Thapar, Sardar Govind Singh, M.Sc. Panj., Ph.D. Lond. Reader. Bhatia, M. L., M.Sc. Panj. Lectr. 2 Demrs.

# ISABELLA THOBURN COLLEGE (WOMEN)

# Principal—Miss Mary E. Shannon, M.A.

Oldroyd, Miss R., M.A. Kansas State Teacher.

Chemistry

Wallace, Miss M., B.A. Minnesota, M.A. Columbia Teacher. Mukerjee, L. N., M.Sc. Teacher.

Economics

Menon, Mrs. L., M.A. Mad. Teacher. English Dimmitt, Miss M. A., M.A. De Reader. Pauw. Teacher. Roy, Miss N., M.A. History, European [Reader. Vincent, Miss S. I., M.A. Harv.

History, Indian Chakko, Miss S., M.A. Mad.

Teacher.

Persian Baij Nath Fiqar, Munshi Philosophy

Venkataratnam, Miss B., M.A. Mad. Teacher.

Political Science

Manchester, Miss R. C., M.A. Reader. Bryn Mawr Sanskrit [Lectr.

Srivastava, S. R., M.A. All., LL.B. Zoology

Thillayampalam, Miss E., M.Sc. All., Ph.D. Col.

<sup>\*</sup> Dean, Fac. of Sci.

#### FACULTY OF COMMERCE

Das Gupta, B. N., B.A. Calc., A.S.A.A. Chatterji, B. N., M.A., B.L. Calc. Gupta, O. P., B.A. Ben., B.Sc. Lond. Pant, D., B.Com. Bom., Ph.D. Dub. Ahmad Husain Saiyid, B.Com.

(Commerce) Reader.\*
(Economics) Reader.
(Economics) Lectr.
(Commerce) Lectr.
(Commerce) Lectr.

#### FACULTY OF LAW

Chak, Pt. J. N., B.A. Ox.
Reader.
Husein, Hyder, B.A. Ox., LL.B.
Dub.
Reader.
Misra, J. N., B.A., LL.B. Camb.,
M.A., LL.D. Dub.
Reader.

Hajela, K. S., M.A., M.Sc., LL.B.
All., LL.M. Bom. Reader.
Ghulam, Hasan, B.A. Panj., LL.B.
All. Reader.
Misra, L. S., M.A. Camb., LL.B.
Camb. and Dub. Reader.

#### ORIENTAL DEPARTMENT

Maulvi Syed Ali Asghar; Maulvi Mustafa Hasan Alavi; Maulvi Ali Zainabi; Pandit G. C. Avasthi; Pandit Ghootar Jha.

#### GENERAL INFORMATION

This residential and teaching Univ. was established under an Act of the Provincial Legislature passed in Nov. 1920. The authorities of the Univ. include a Court, Executive Council, Academic Council, Committee of Reference, and Faculties.

FACULTIES. Arts, Science, Medicine, Law, Commerce.

LIBRARY. 54,264 vols.

Admission. Qualifications for Degree courses: Arts or Science—the Intermediate Examn. of an Indian Univ. or of the Board of High School and Intermediate Education, U.P., or of Rajputana (incl. Ajmeer-Merwara), Central India, and Gwalior, or of the Board of Intermediate and Sec. Education, Dacca, and the Cambridge Higher School Certificate Examn.—Certificate "A"; Law—Degree in Arts or Science; Commerce—Commerce Diploma Certif. of the Panjab, or the Intermediate Examn. in Commerce of the Board of High School and Interm. Education, U.P., or of Rajputana (incl. Ajmeer-Merwara), Central India, and Gwalior, or the Interm. Examn. in Arts (Group B—Special) of the Delhi Univ. or Interm. Examn. in Group E of the Board of Interm. and Secondary Education, Dacca; Med.—Degree in Science of Agra or Aligarh, All., Benares, Bom., Calc., Dacca, Delhi, Mad., Mys., Nagpur, Panj., Patna, or Rangoon taken with Chem. and Biol. as optional subjects, or, subject to certain conditions, the Inter. or B.Sc. Examn. of All., Alig., Benares, Nagpur, Interm. Board of Ed., U.P., or of Rajputana, Central India, and Gwalior.

Degree courses for B.A. Pass, B.Sc. Pass, B.Com., 2 yrs.; B.A. Honours, B.Sc. Honours, 3 yrs.; M.A., M.Sc., 2 yrs. or (after B.A. Hons. or B.Sc. Hons.) 1 yr.; Ll.B., 2 yrs.; M.B., B.S., 5 yrs; D.Sc., 3 yrs.; Ph.D., 2 yrs. The lectures are supplemented by tutorial work

DIPLOMAS. Courses in Public Health, Teaching, Arabic, Persian, and Sanskrit.

FEES for tuition for full course: B.A., Pass, or B.Com., Rs. 216; M.A., Rs. 270; M.B., B.S., Rs. 650; D.P.H., Rs. 340; B.Sc. Pass, Rs. 252; B.A. Honours, Rs. 324; B.Sc. Honours, Rs. 378; M.Sc., Rs. 150 (for 1 yr.'s course) or Rs. 300 (for 2 yrs.' course); LL.B., Rs. 240; D.Sc., Rs. 675.

RESIDENCE. Students are required, unless specially exempted, to live in hostels, King George's Medical Coll. and Canning Coll. for men; Isabella Thoburn Coll. for women.

ADULT EDUCATION. A system of public lectures by members of the staff and others is in force.

FINANCE. The University received a grant of Rs. 12,02,819 from the Provincial revenues out of which a sum of Rs. 2,92,069 was for the Hospital maintained in connexion with the King George's Medical College. The other income of the University consists of interest on endowments and subscriptions, plus fees. The total income of the University was Rs. 16,91,740.

Publications. Calendar; Aynual Report; Quinquennial Report of Research Work.

# THE YEAR 1930-31

BENEFACTIONS. Mr. D. N. Banerji, Rs. 3000 for poor students' Library; Treasurer Ohdedar Memorial Fund, Rs. 1400 in Govt. Pro-Notes, for a gold medal; the City Magistrate and Secretary H.E. the Viceroy's Reception Fund, Lucknow, Rs. 743/3 for Leper Hospital; British Empire Leprosy Relief Association, Rs. 2433 for Skin Diseases of the King George's Hospital.

NEW BUILDINGS. Extension of C.G. and T.G. Hostels of the King George's Medical Coll.

CHANGES IN REGULATIONS. Names in the 1st Division of the M.A. and M.Sc. Examns. will be published in order of merit. First M.B., B.S. Examn. will be held twice a yr. Study leave rules amended. Ordinances for Diploma examns. in Sanskrit sanctioned. Rules regarding travelling allowances and for the management of the King George's Hospital revised.

RETIREMENT. Dr. M. B. Cameran, former Vice-Chancellor.

DEATH. Raja Sir Harnam Singh Ahluwalia, a life member of the Court.

VISIT OF TEACHER FROM OTHER UNIV. Prof. F. B. S. Sayre, Prof. of International Law, Harvard Univ., and Foreign adviser to the Siamese Government, delivered an extension lecture.

Physical Training has been made optional.

Honorary Degree. D.Lit.—Major-General C. A. Sprawson, C.I.E., V.H.S., M.D., B.S., F.R.C.P., I.M.S., ex-Principal, King George's Medical Coll., and Dean, Fac. of Medicine.

STUDENTS. Full-time, 1648.

DEGREES. B.A., 100; B.A. (Hons.), 10; M.A., 67; B.Sc., 31; B.Sc. (Hons.), 5; M.Sc., 28; M.B., B.S., 45; D.P.H., 13; M.S., 1; LL.B., 95; B.Com., 25; Dipl. in Teaching, 9; Dipl. in Oriental Learning, 55.

# UNIVERSITY OF MADRAS

Address-Senate House, Triplicane P.O., Madras.

VISITOR—H.E. THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR-H.E. THE GOVERNOR OF MADRAS.

PRO-CHANCELLOR-THE MINISTER FOR EDUCATION.

VICE-CHANCELLOR-DIWAN BAHADUR K. RAMUNNI MENON, M.A. Camb.

REGISTRAR-WILLIAM McLEAN, M.A., B.L. Glas., F.C.I.S.

LIBRARIAN—S. R. RANGANATHAN, M.A., L.T.

## UNIVERSITY PROFESSORS, LECTURERS, ETC.

Indian Economics

Thomas, P. J., M.A., B.Litt. Ox., Ph.D. Lond. Prof. Lokanathan, P. S., M.A. Reader. Ramakrishnan, K. C., M.A. Dip.

Lectr. Adyanthayya, N. K., B.A., B.Sc. Lond. Lectr.

Indian History and Archæology Sastri, Nilakanta, K.A., M.A. Prof. Venkataramanayyar, N., M.A., Ph.D. Reader. Dikshitar, V. R. R., M.A., Dip.

Indian Philosophy

Sastri, S. S. Suryanarayana, M.A., B.Sc. Ox. Reader.

Mathematics

Vaidyanathaswami, R., M.A., D.Sc. Lond., Ph.D. Edin. Reader.

#### ORIENTAL RESEARCH INSTITUTE

Sanskrit

[Reader. Raja, C. K., M.A., D.Phil. Ox.

Chintamani, T. R., M.A.

Senr. Lectr. Sastri, S. K. R. Junr. Lectr.

Tamil

Pillai, S. A., M.A., L.T. Reader. Pillai, K. N. S., B.A. Senr. Lectr. Reddiyar, V. V. Junr. Lectr.

Telugu

Ramakrishnayya, K., M.A.

Senr. Lectr. Sastri, V. Ch. S. Junr. Lectr.

#### Malayalam

Menon, C. A., B.A. Senr. Lectr. Nayar, P. K. Junr. Lectr.

#### Kanarese

Rao, A. V., B.A., L.T. Senr. Lectr. Ayyangar, H. S. Junr. Lectr.

Arabic, Persian, and Urdu

Nainar, Md. H., M.A. Aligarh, LL.B. Senr. Lectr. (Arabic).

Junr. Lectrs.:

Eushaw, Syed, B.A. (Persian). Siddigi, Md. H. M. (Urdu).

#### GENERAL INFORMATION

This Univ., founded in 1857, was reorganized in 1923 as a Teaching and Residential Univ., and it continues to exercise control over the quality of the teaching given by its constituent and affiliated colleges. The Vice-Chancellor is a whole-time salaried officer. The authorities of the Univ.

include a Senate, Syndicate, Academic Council, Faculties, and Boards of Studies.

From the Govt. of Madras the Univ. receives an annual statutory grant of Rs. 85,500, and a block grant of Rs. 2.3 lakhs.

The Institute of Oriental Studies and Research is attached to the Univ. It has three sections, viz., Sanskritic, Dravidian, and Islamic.

Laboratories for research in Zool., Bot., and Bio-chem. are being provided. A beginning has been made in the Depts. of Zool. and Bot. There are also Depts. of study and research in the following subjects: Indian Hist. and Archæol., Indian Econ., Indian Philos., Maths.

FACULTIES. Arts, Science, Law, Medicine, Engineering, Teaching, Agriculture, Commerce, Oriental Learning, and Fine Arts.

ADMISSION. The Matricn. examn. has been almost completely superseded by the School-Leaving Certif. scheme.

Degrees, etc. B.A., B.Sc., B.A. (Honours), B.Sc. (Honours), M.A., Ph.D., M.Sc., D.Sc.; B.Sc.Agr.; L.T.; B.L., M.L., LL.D.; M.B. and B.S., L.M. and S., B.San. Sc., M.D., M.S.; D.G.O.; B.E.; M.O.L. (Oriental Learning).

DIPLOMAS. Titles in Oriental Learning (4 yrs.' course); Economics (parttime course—2 yrs.). Certificates of Proficiency in Oriental Learning (2 yrs.). Modern European Languages—French and German—(1 yr.).

RECOGNITION of examns. of other Univs. is not granted in general terms. The Syndicate deals with each application on its merits.

FEES for Univ. examns. range from Rs. 12 to Rs. 150.

RESIDENCE, ETC. Minimum cost of board and lodging for students living in European style, Rs. 50 p.m.; for Indians, Rs. 30. A Students' Club, started under the auspices of the Madras Govt. in 1919, provides inexpensive meals and facilities for games and social intercourse irrespective of caste or creed.

RESEARCH STUDENTSHIPS, tenable 2 or 3 yrs., value Rs. 75 p.m. Fellowships, Rs. 125 to Rs. 150 p.m.

Publications. Calendar (July)—vol. i., Administration, Statutes, Ordinances and Regns., Syllabuses; vol. ii., Constituent and Affld. Colls., Endowments, Graduates; Annual Report; Minutes; Madras Univ. Magazine; Tamil Lexicon (4 vols. published).

#### CONSTITUENT HONOURS COLLEGES

Madras, Christian College. (Recognized in Hons. Courses in English Langand Lit., Hist. and Econ., Maths., Philos., Physics and Zool.) Principal—Rev. A. G. Hogg, M.A., D.Litt. Edin. Profs.: Chem.—E. Barnes, B.Sc. Lond. English Lang. and Lit.—W. L. Campbell, B.A. Belf.; Rev. G. Matthews, M.A. Ox., B.Litt.; Rev. J. R. Macphail, M.A. Glas.; G. C. Martin, M.A. Edin. Hist.—F. E. Corley, M.A. Ox. (on leave); E. J. Bingle, M.A. Ox. Maths.—E. B. Ross, M.A. Edin. and Camb.; W. F. Kibble, B.A. Camb. Philos.—The Principal; S. J. Theodore, M.A. Yale, B.Litt. Ox. Physics.—J. P. Manikam, M.A.; A. V. Moses, Ph.D. Liv., M.A.; H. R. Mills, B.Sc. Lond. II Lectrs., 32 other Teachers.

Madras, Loyola College. (Recognized in Hons. Courses in English Lang. and Lit., Econ., Maths.) Principal—Rev. F. Bertram, S.J., B.A., D.D. Profs.: Econ.—Rev. F. Basenach, S.J., B.Sc. Lond. English—Rev. L. D. Murphy, S.J., M.A. Ox. Maths.—Rev. L. Vion, S.J., L. ès Sc. Paris. 36 Lectrs.

Madras, Pachaiyappa's College. (Recognized in Hons. Courses in Econ., Hist., Philos.) Principal—Rao Bahadur K. Chinnatambi Pillai, B.A., L.T. Profs.: Econ.—E. S. A. Ayyar, M.A. English—S. K. Y. Ayyar, M.A.; P. S. Ayya, B.A., L.T. Hist.—C. S. Srinivasachari, M.A.; T. R. S. Ayyangar, M.A. Indian Langs.: Tamil—M. K. Mudaliyar, B.A.; Telugu—V. G. J. Somayaji, M.A., L.T.; Sanskrit—A. S. Mudaliyar, M.A. Maths.—The Principal. Philos.—P. N. Srinivasachari, M.A. Physics—K. A. Naidu, B.A., B.L., L.T. 27 other Teachers.

Madras, Presidency College. (Recognized in Hons. Courses in Bot., Chem., Econ., English Lang. and Lit., Geol., Hist., Maths., Philos., Physics, Sanskrit Lang. and Lit., Zool.) Principal—P. F. Fyson, M.A. Camb. Profs.: Bot.—The Principal; T. Ekambaram, Ph.D. Lond., M.A. Chem.—B. B. Dey, M.Sc. Calc., D.Sc. Lond.; P. A. N. Ayyar, M.A., L.T. Econ.—P. P. Kallukaran, M.A., B.Sc., Ph.D. Lond. English—V. K. A. Pillai, B.A. Ox., M.A.; K. Swaminathan, B.A. Ox., M.A.; D. S. Sarma, M.A., L.T. Geol.—C. K. K. Pillai, M.Sc. Lond., M.A., L.T., D.I.C. Hist.—J. Franco, M.A., L.T.; V. Rangachari, M.A., L.T. Maths.—K. A. Rao, B.A. Camb., M.A.; T. Suryanarayana, B.A. Camb. Philos.—P. Narasinham, M.A., L.T. Physics—H. Paramesvaran, D.Sc. Lond., M.A., Ph.D., F.I.P.; V. A. Rao, M.A., L.T. Sanskrit—M. S. K. Sastri, M.A.; P. P. S. Sastri, B.A. Ox. Zool.—S. G. Manavalaramanujam, Ph.D. Lond., M.A., D.I.C. 50 other Teachers.

## AFFILIATED HONOURS COLLEGES

Hyderabad, Nizam College. (Affiliated in Hons. Courses in Econ. and Hist.) Principal—W. Turner, M.A. Edin. Profs.: Arabic—Zahid Ali, D.Phil. Ox., B.A. Chem.—B. C. McEwen, B.Sc. Lond., F.C.S. (on leave); Querishi, M.A. Panj., Ph.D. Berlin (acting). Econ.—A. Mohiuddin, B.A. Camb.; S. K. Ayyangar, M.A. Engl.—The Principal; Q. Hussain, M.A. (Vice-Princ.). Hist.—S. H. Rao, M.A., L.T. Maths.—M. V. A. Sastri, M.A., L.T. Persian—Aga S. Md. Ali. Physics—J. C. K. Rao, D.Sc. Calc. 21 other Teachers.

Trichinopoly, Bishop Heber College. (Affiliated in Hons. Courses in Maths.) Principal—Rev. C. H. Firbank, M.A. Ox. Profs.: English—The Principal. Hist.—M. Koilpillai, M.A., L.T. Maths.—Martyn Thomas, M.A. Physics and Chem.—A. D. A. Ayyar, M.A. 20 other Teachers.

TRICHINOPOLY, St. Joseph's College. (Affiliated in Hons. Courses in Econ., Hist., Maths., Physics.) Principal—Rev. A. Bonhouse, S.J. Profs.: Chem.—Rev. A. Haas, S.J. English—Rev. C. Leigh, S.J. French—Rev. J. Bourdot, S.J. Hist. and Econ.—Rev. P. Carty, S.J., B.Sc. Lond.; Rev. A. Seldanha, S.J. Logic—Rev. V. Allard, S.J. Maths.—Rev. C. Pruvot, S.J. Nat. Sc.—Rev. A. Rapinat, S.J. Physics—Rev. D. Honore, S.J.; P. E. S. Ayyar, M.A. 55 other Teachers.

TRIVANDRUM, Maharaja's College of Arts. (Affiliated in Hons. Courses in Econ., English Lang. and Lit., Hist.) Principal—Rao Bahadur K. V. R. Ayyangar, M.A. Profs.: English—P. G. S. Ayyar, M.A.; E. T. Thomas, M.A. Hist. and Econ.—The Principal. Malayalam—P. A. Pillai, M.A. Philos.—P. Narasimhayya, M.A., Ph.D. (on leave); V. S. Naidu, M.A., B.L. Sanskrit—N. N. Pillai, M.A. 26 other Teachers.

TRIVANDRUM, Maharaja's College of Science. (Affiliated in Hons. Courses in Maths.) Principal—C. V. Chandrasekharan, M.A. Ox. Profs.: Botany—T. K. Koshy, M.A. Chem.—K. L. Moudgill, M.A. Camb., D.Sc. Glas., F.I.C. Lond. English—The Principal. Maths.—R. Srinivasan, M.A. Physics—

S. R. Ayyar, M.A. Zool.—K. S. P. Ayyar, M.A., L.T., D.Sc. 44 other Teachers.

#### CONSTITUENT FIRST GRADE COLLEGES

Madras, Government Muhammedan College. Principal—E. W. Green, M.A. 3 Profs., 12 other Teachers.

Madras, Queen Mary's College for Women. Principal—Miss D. de la Hey, M.A. 7 Profs., 20 other Teachers.

Madras, Women's Christian College. Principal—Miss E. McDougall, M.A., D.Litt. 8 Profs., 16 other Teachers.

#### AFFILIATED FIRST GRADE COLLEGES

ALWAYE, Union Christian College. Principal—A. M. Varki, M.A., B.L. 22 other Teachers.

Anantapur, Ceded District College. Principal—N. R. Krishnamma, B.A. Camb. 25 other Teachers.

Bangalore, St. Joseph's College. Principal—Rev. F. Veysseyre. 24 other Teachers.

CHENGANACHERRY, St. Berchman's College. Principal—Rev. M. K. Purakkal, M.A. 28 other Teachers.

Ernakulam, Maharaja's College. Principal—K. N. Pai, B.A., L.T. 43 other Teachers.

Ernakulam, St. Teresa's College. Principal—Sister M. Beatrice, M.A. Edin., L.T. 12 other Teachers.

Kumbakonam, Government College. Principal—K. Srinivasapatrachari, M.A., L.T. 23 other Teachers.

MADANAPALLE, Theosophical College. Principal—C. S. Trilokekar, M.A. Bom. 14 other Teachers.

Madura, American College. Principal—E. M. Flint, M.A., B.Sc. 39 other Teachers.

Madura, Madura College. Principal—P. Mahadevan, M.A. 15 other Teachers.

Mangalore, St. Agnes' College. Principal—Sister Annunciata, A.C., B.A. o other Teachers.

Mangalore, St. Aloysius' College. Principal—Rev. A. Ambruzzi, S.J. 35 other Teachers.

Mannargudi, Findlay College. Principal—Rev. R. Smailes, M.A. 13 other Teachers.

PALAMCOTTAH, St. Xavier's College. Principal—Rev. A. Gnanapragasam, S.I., B.A. 28 other Teachers.

PALGHAT, Government Victoria College. Principal—H. C. Papworth, M.A. 22 other Teachers.

TINNEVELLY, *Hindu College*. Principal—Rao Bahadur P. V. S. Ayyar, B.A., L.T. 19 other Teachers.

TRICHINOPOLY, National College. Principal—V. S. Ayyangar, M.A. 16 other Teachers.

TRICHUR, St. Thomas' College. Principal—Rev. J. Palocaren, M.A. Edin. 21 other Teachers.

TRIVANDRUM, Maharaja's College for Women. Principal—Miss F. E. Grose, M.A. Camb. 27 other Teachers.

#### CONSTITUENT SECOND GRADE COLLEGE

Madras, Wesley College. Principal—Rev. T. R. Foulger, M.A. 13 other Teachers.

#### AFFILIATED SECOND GRADE COLLEGES

BANGALORE, Sacred Heart College. Principal—Sister Mary of the Divine Heart. 4 other Teachers.

CALICUT, Malabar Christian College. Principal—Rev. A. Streekeisen. 12 other Teachers.

CALICUT, Zamorin's College. Principal—A. V. K. K. Menon, M.A., B.L., L.T. 12 other Teachers.

COIMBATORE, Government College. Principal—G. Sambamurti, B.A., L.T. 12 other Teachers.

KOTTAYAM, C.M.S. College. Principal—C. K. Thomas, B.A., L.T. 18 other Teachers.

Mangalore, Government College. Principal—G. K. Chettur, M.A. Ox. 13 other Teachers.

NAGERCOIL, Scott Christian College. Principal—G. W. Trowell, B.Sc. Lond. 11 other Teachers.

Рацамсоттан, St. John's College. Principal—Rev. H. P. Young, M.A. Camb., B.Litt. Durham. 9 other Teachers.

Palamcottah, Sarah Tucker College. Principal—Miss E. M. Chambers, M.A. Ox.  $\, 7 \,$  other Teachers.

Pudukottah, *Maharaja's College*. Principal—N. T. Ayyar, M.A., L.T. 12 other Teachers.

SALEM, Salem College. Principal—A. R. Goundar, M.A., L.T. 8 other Teachers.

Tellicherry, Government Brennen College. Principal—T. M. K. Nedungadi, M.A., L.T. 10 other Teachers.

TRICHINOPOLY, Holy Cross College. Principal—Sister Sophie, B.C. 8 other Teachers.

Vanivambadi, *Islamiah College*. Principal—Ahmed Ali, M.A., L.T. 8 other Teachers.

Vellore, Elizabeth R. Voorhee's College. Principal—Rev. J. J. De Boer, M.A., Ph.D. 13 other Teachers.

# CONSTITUENT PROFESSIONAL COLLEGES

#### Engineering

Guindy, College of Engineering. Principal—G. Nagaratnam Ayyar, B.A., B.E., M.I.E. Ind. Profs.: Civil Eng.—K.C. Chakko, D.Sc. Lond., B.A., B.Sc., M.I.E. Ind.; P. A. Midha, M.Sc., M.Eng., M.I.S.E. Electr. Eng.—W. A. Wales, B.Sc. Mech. Eng.—J. H. C. Kann, B.Sc. Lond. Science—M. D. Kini, M.A., L.T. Surveying—W. C. Old. 22 Instructors, 12 Workshop Assts.

#### Law

Madras, Law College. Principal—K. Krishna Menon, M.A. Ox., LL.B. Lond., B.C.L. Other Profs.: M. A. Azeem, B.A. Camb., LL.B. Camb. (Vice-

Pr.); S. Govindarajulu, B.A. Camb., B.L., LL.B. Camb.; T. S. V. Ayyar, M.A., B.L.; N. Sivaraj, B.A., B.L.; K. V. V. Ayyar, B.A., M.L. 3 other Teachers.

#### Medicine

MADRAS, Medical College. Principal-Lt.-Col. C. A. F. Hingston, C.I.E., O.B.E., M.R.C.S., L.R.C.P., I.M.S. Profs.: Anæsthesia-P. V. Francis. Anat.—P. K. Koshy, B.A., M.B.B.S., M.R.C.P. Bact.—S. Ramakrishnan, L.M.S., L.R.C.P.S., D.T.M. & H.; P. A. Mathew, B.A., M.B.B.S. (acting). Biol.—P. J. Sundar Rao, M.A., F.B. Chem.—Lt.-Col. Newcomb, D.M., F.I.C., I.M.S. Dent. Surg.—J. B. Chenoy, L.D.S., R.C.S. Ear, Nose, and Throat—P. V. Cherian, M.B.B.S., F.R.F.P.S. Glas., F.R.C.S., D.L.O. Hamat. and Card.—T. Krishna Menon, M.B., C.M., M.R.C.S., L.R.C.P. Hyg.—A. Thirumaliah, L.M.S., L.R.C.P.S., L.R.F.P. & S., D.P.H. Infec. Dis .-S. E. D. Masilamani, M.B.B.S., B.S.Sc. Med. Jurisp .- M. L. Kamath, B.A., M.D., C.M. Med. Therap.—M. R. G. Mudaliyar, B.A., M.D., C.M. Med.— Lt.-Col. G. E. Malcomson, M.D. Lond., D.P.H. Lond., M.R.C.P. Lond., I.M.S.; Lt.-Col. J. M. Skinner, M.B., D.T.M., I.M.S. Mental Dis.—H. S. Hensman, L.M.S., M.R.C.S., L.R.C.P., M.P.C. Midw.—The Principal. Obst., Gynæc. and Dis. of Children-Rao Bahadur A. L. Mudaliyar, B.A., M.D. Ophthalmol. —Lt.-Col. R. E. Wright, B.A., M.D., B.Ch., B.A.O., D.P.H. Dub., I.M.S. Pathol.—A. S. Naidu, B.A., M.D., B.S.Sc. Pharmacol.—J. C. David, M.B.B.S., Ph.D. Edin. Physics-C. P. Narayana Ayyar, M.A., L.T. Physiol.-B. T. Krishnan, B.A., M.B.B.S., M.Sc. Radiol.-M. I. S. Pillai, L.M.S., L.R.C.P., L.R.F.P. & S., D.R.M.K. Surg.—Lt.-Col. R. G. G. Croly, M.B., B.Ch., D.T.M. & B., F.R.C.S.E., I.M.S. Surg., Operat.—Lt.-Col. K. G. Pandalai, M.B., C.M., F.R.C.S., I.M.S. Surg., Princ. and Pract. of-N. Mangesh Rao, M.B., C.M., F.R.C.S., F.R.C.P.S.I. Tuberculosis—Rao Bahadur M. Kesava Pai, M.D., C.M. Vaccin.—C. S. G. Pillai, M.B., C.M., L.R.C.P. & S., D.P.H. Edin. Vener. Dis.-W. Happer, M.B., Ch.B., M.R.C.P.E. 56 Assistants.

#### Teaching

MADRAS, Lady Willingdon Training College. Acting Principal—Miss K. Myers, M.A. Ox. Other Profs.: Miss C. N. N. Ammal, B.A., L.T., B.Sc. Lond. and Camb.; Miss B. Amirthammal, B.A., L.T.; Miss C. M. Cavanagh, B.A. 5 other Teachers.

Madras, St. Christopher's Training College. Principal—Miss K. N. Brockway, M.A. Camb. Other Profs.: Miss L. A. Devasahayam, B.A., L.T.; Miss V. K. Black, B.Sc. St. And.; Miss C. Eipe, M.A. Tor.; Miss S. C. Ferguson, M.A.; Miss E. D. Birdseye, B.Sc. Lond. (on leave); P. Sambamurti, B.A., B.L., L.T. (on leave). 3 other Teachers.

SAIDAPET, Teachers' College. Principal—R. M. Statham, M.A. Camb. Other Profs.: Rao Sahib P. K. A. Ayyar, M.A., L.T. (Vice-Pr.); Miss C. Gordon; Miss M. James, M.A.; S. B. Ayyar, B.A., L.T.; C. N. E. Mudaliyar, M.A., L.T.; N. S. Ayyar, M.A., L.T. 2 other Teachers.

#### AFFILIATED PROFESSIONAL COLLEGES

#### Agriculture

COIMBATORE, Agricultural College. Principal—C. Tadulingam, F.L.S. 5 Profs., 12 Asst. Lectrs.

#### Law

TRIVANDRUM, Maharaja's Law College. Principal—M. K. G. Pillai, B.A., B.L. 2 other Profs., 6 other Teachers.

#### Teaching

TRIVANDRUM, *Training College*. Principal—Rao Bahadur K. V. R. Ayyangar, M.A. 5 other Profs., 6 other Teachers.

#### APPROVED INSTITUTIONS

#### Oriental Learning

Two Sanskrit Colleges in Madras and 14 in other towns are recognized as qualified to provide instruction for the Oriental Titles.

# THE YEAR 1930-31

NEW BUILDINGS. Foundations for the Univ. Library and Laboratory (Biol. and Bio-chem.) buildings completed. The superstructure of the Laboratory Buildings is under construction.

STUDENTS. Full-time: total, 16,286. Part-time: total, 114.

DEGREES. M.L., 3; B.L., 232; M.D., 5; B.S.Sc., 10; M.B. and B.S., 47; L.M. and S., 36; Ph.D., 4; B.E., 25; B.Sc., 3; B.Sc.(Ag.), 24; L.T., 156; M.Sc., 8; M.A., 132; B.A. (Hons.), 204; B.A., 1640; O.T., 75; Dipl. in Econ., 11; Dipl. in European Langs., 13.

# UNIVERSITY OF MYSORE

Chancellor—H.H. Sri Krishnaraja Wadiyar Bahadur, G.C.S.I., G.B.E., Maharaja of Mysore.

Pro-Chancellor—H.H. Sri Kanthirava Narasimha Raja Wadiyar, G.C.I.E., Yuvaraja of Mysore.

VICE-CHANCELLOR-Dr. E. P. METCALFE, D.Sc. Lond., F.Inst.P.

REGISTRAR—V. GOPALASWAMI AIENGAR, M.A.

LIBRARIAN—N. NARASIMHA MOORTY, M.A., B.L.

(U.) = Univ. Professor.

# PROFESSORS, LECTURERS, ETC.

Archæology

Krishna, I. M. H., M.A., D.Lit. Lond. Director.

Botany

Sampatkumaran, M.A., Ph.D., S.M. Chic. Prof. 2 Asst. Profs., 2 Lectrs., 6 Demrs.

Chemistry

Sanjiva Rao, B., M.A., Ph.D. Lond. Prof. Manjanath, B. L., M.Sc. Lond.,

D.Phil. Ox. Prof. 4 Asst. Profs., 8 Lectrs., 10 Demrs.

Education

Jacob, T. N., M.A., Ph.D. Prof. 2 Asst. Profs.

Engineering [Prof. (Civ. E.). Lakshminarasappa, S. H., B.A., B.M.E., B.C.E., B.Arch. (Principal, College of Engineering)

Ramaswamy, E. K., B.Sc. Lond.,
A.C.G.I. Prof. (Mech. E.).

Das, J. P., B.A., M.Sc.

Prof. (El. E.).
Rangaswami Iyengar, C., B.A.,
B.E. Prof. (Civ. E.).
4 Asst. Profs., 3 Lectrs., 6 Instrs.,
4 Lab. Assts., 1 Demr.

English

Mackintosh, A. B., M.A. Ox., M.A. St. And. Prof. (U.).

Rollo, J. C., B.A. Ox., M.A. Glas. Prof. (Principal, Maharaja's College) (U.).

Sell, F. R., M.A. Ox.
Prof. (Principal, Cent.
Coll.) (U.).

McAlpine, E. G., M.A. Edin. Prof. (U.) (on Foreign Service).

Srikantia, B. M., M.A., B.L. Prof. (U.).

Hensman, Mrs. H. S., M.A. Prof. 8 Asst. Profs., 6 Lectrs., 11 other Teachers.

French

Cochet, Father J., B.A. Lectr. Collart, Father R. M. Lectr.

Geology [Prof. (U.). Sampat Iengar, P., M.A. 2 Asst. Profs., 2 Lectrs., 5 Demrs.

Hindustani, Persian, and Arabic Aga M. Abbas Shooshtry Prof. 2 Tutors, 4 Munshis.

History, Economics, and Political Science

Venkateswara Aiyar, S. V., M.A., L.T. Prof. (U.). Sri K. D. Rukminiamma, B.A.

D'Souza, V. L., B.A., B.Com. Lond. Prof.

Prof.

Krishna, I. M. H., M.A., D.Lit.
Lond. Prof.
4 Asst. Profs., 10 Lectrs., 4 Tutors.

Kannada
Srikantia, B. M., M.A., B.L.
Hon. Prof.
Venkannaia, T. S., M.A., LL.B.
Prof.

Krishnasastry, A. R., M.A. Asst. Prof.

5 Pandits, 3 Lectrs.

Mathematics and Statistics [Prof. Iyengar, K. S. K., B.A. Camb. Madhava, K. B., M.A. Prof. Gopalaswami, Aiengar V., M.A. Prof.

5 Asst. Profs., 10 Lectrs., 12 other Teachers.

Philosophy, Psychology, and Logic Wadia, A. R., B.A. Prof. (U.). Gopalaswamy, M. V., B.A., B.Sc., Ph.D. Lond. Prof. 6 Lectrs. and 6 other Teachers.

Physics

Venkatesachar, B., M.A.

Prof. (U.).
Telang, Venkata Rao, A., M.A.
Prof.
S Asst. Profs., 4 Lectrs., 11 other
Teachers.

Sanskrit

Srinivasachar, D., M.A. Prof. 1 Asst. Prof., 2 Lectrs., 3 Tutors, 2 Pandits.

Tamil and Telugu
4 Pandits.

Zoology [Prof. Narayana Rao, C. R., M.A., L.T. 1 Asst. Prof., 3 Lectrs., 6 Demrs.

#### Medicine

Robinson, J. F., B.A., M.D., F.R.C.S., F.A.C.S.

(Surgery) Prof. Subba Rao, A., B.A., D.Sc. Lond., (Physiol. & Embryol.) Prof.

Seshachalam, T., L.M.S., L.R.C.P., M.R.C.S. (Anatomy) Prof.

Krishnaswami Rao, C., B.A., M.B., C.M., M.R.C.P. Lond.

(Medicine) Prof.

Srikantia, C., B.A., D.Sc.

(Chem.) Prof.
Sambasivan, B. G., M.B., B.S.,
M.R.C.S. Eng., L.R.C.P.
Lond. (Pathology) Prof.

Captain, Miss Kh. S., M.D., B.S. Lond., D.T.M. & H. Eng., L.M. Dub. (Midwifery) Prof.

Subba Rao, P. R., L.M.S., L.R.C.P. Lond., M.R.C.S. Eng., D.O.M.S. (Ophthalmol.) Prof.

Ponnambalam, A. M., B.A., L.M.S., M.R.C.P. (Ed.), D.O.M.S. (Pharmacol.) Prof.

Asst. Profs. (one in each subject) in Bot., Zool., and Physics.

Lecturers (one in each subject) in Chem., Biol., Physics, Pharmacol., Med., Surg., Midw., Ophthalm. (Two in each subject) in Pathol., Hyg., Jurispr., Mental Diseases, and Dental Surg. (Three in each subject) in Anat. and Physiol.

2 Demrs. in Anat. and I in Physiol.

I Demr. in Pathol. and I in Bio-Chem.

2 Demrs. in Surg.

2 Demrs. in Medicine.

# CONSTITUENT COLLEGES

THE MAHARAJA'S COLLEGE, Bangalore. Principal and President—J. C. Rollo, M.A. Glas., B.A. Ox.

The Central College, Bangalore. Principal and President—F. R. Sell, M.A. Ox.

THE COLLEGE OF ENGINEERING, Bangalore. Principal and President—S. H. Lakshminarasappa, B.A., B.E., B.Arch.

THE MEDICAL COLLEGE, Mysore. Principal and President—J. F. Robinson, B.A., M.D., F.A.C.S., F.R.C.S.Ed.

THE MAHARANI'S WOMEN'S COLLEGE, Mysore. Superintendent and President—Sri K. D. Rukminiamma, B.A.

#### GENERAL INFORMATION

This Univ. was founded in 1916 with two constituent Colleges, the Central Coll., Bangalore, and Maharaja's Coll., Mysore, which had for 25 yrs. been affiliated to the Univ. of Madras. To these have since been added the Women's and Professional Colleges mentioned above. There are also six Intermediate Colleges, four for men at Mysore, Bangalore, Tumkur, and Shimoga, two for women, one at Bangalore and the other at Mysore, and a Medical School at Bangalore. The capital cost of all the Univ.'s buildings amounts to Rs. 12.63,100.

LIBRARIES. Univ., 20,158 vols.; Colleges, 46,138 vols.; Sansk. and Oriental, 14,548 vols. and 10,497 MSS.

FACULTIES. Arts, Science, Medicine, Engineering and Technology.

TERMS: July to Oct., Nov. to March.

Admission to B.A. or B.Sc. courses is normally by Intermediate examn. in English, a second language, and three other subjects. Candidates prepare for this by two years' study in Intermed. Colleges after the ordinary High School course. Admission to the B.E. course is by the Inter. Examn. in Science (leading to Eng.). Admission to the M.B., B.S. course is by the Inter. Examn. in Sci. (leading to Medicine). The B.Com. course suspended for the present.

Degree Courses. 2 yrs.—B.A. or B.Sc. (Pass); 3 yrs.—B.A. or B.Sc. (Hons.); 4 yrs.—B.E. (successful candidates are eligible to take the degree after a year's practical course in a recognized firm); 5 yrs.—M.B., B.S.; graduate course for M.A.—2 yrs., for B.T. 1 yr after the B.A. or B.Sc. Courses for M.A. and M.Sc. in Mathematics, 2 yrs. after B.A. or B.Sc. The D.Litt., D.Sc., and LL.D. are Honorary.

DIPLOMA COURSE. L.M.P., 4 yrs. after High School.

RECOGNITION OF DEGREES and examns. of other Univs.: (1) The B.A. Degree of other Indian Univs. is deemed equivalent to the B.A. of this Univ. and admits to its M.A. courses, provided the degree examns. have been passed in cognate subjects. (2) The B.A. or B.Sc. of other Indian Univs. is accepted for admission to the B.T. course. (3) The Inter. Examn. of other Indian Univs. is recognized for admission to the B.A. and B.Sc. courses of this Univ., subject to the approval of the Univ. council in cases in which specific recognition has not been agreed to. (4) The B.A., B.Sc., M.A., M.Sc., and B.L. of the Dacca Univ. = the corresponding degrees of this Univ. and admit to corresponding privileges. (5) The degrees of the Lucknow Univ. = the corresponding degrees of this Univ. (6) The B.A. and B.Sc. of the Aligarh Muslim Univ. = the B.A. (Arts and Science) of this Univ. for admission to higher courses in the subjects taken for the degree. (7) B.A. and B.Sc. Degrees of Delhi Univ. = corresponding degrees of this Univ. (8) The B.A. Degree of the Andhra University is recognized for admission to the M.A. and B.T. classes of this University. (9) B.A. and B.Sc. Degrees of the Agra University = the corresponding degrees of this University. (10) Candidates who have passed the Cambridge Examn. (Senior Local) and the Oxford Certificate Examn. (Senior

Local) are admitted to the Junior Inter. class of this Univ. for courses of study approved by Council. (11) The B.A. Degree Examn. of Annamalai Univ. has been recognized as equivalent to the B.A. Examn. of this Univ. (12) The B.A. Degree Examn. of Bombay Univ. has been recognized as equivalent to the B.A. Examn. of this Univ.

RECOGNITION BY OTHER UNIVERSITIES. Calcutta: (1) B.A. and B.Sc. Mysore are admitted to Calcutta M.A. and M.Sc. courses equally with B.A. and B.Sc. Calc.; (2) Inter. Examns. in Arts and Sci. of Mysore Univ. = the corresponding examns. of Calcutta Univ.

Bombay: (1) The B.A. Examn. of this Univ. = the B.A. Examn. of Bombay Univ. (2) The Inter. Arts and Inter. Sci. Examns. of this Univ. = the corresponding examns. of Bombay Univ. (3) For admission to Bombay B.Com. Degree Examn. graduates in Arts or in Commerce of Mysore are on same footing as graduates in Arts or in Commerce of Statutory Indian Univs. (4) The B.Sc. Examn. of the Mysore Univ. is recognized as equivalent to the B.Sc. Examnation of the Bombay Univ. for the purpose of admission to the M.Sc. Examn. of that University. (5) Bachelors of Engin. of this Univ., who have practised as Civil, Mech., or Elec. Engrs. for at least 3 years after graduation, are admitted to the M.E. Examn. (Civil, Mech. or Elec.) of Bombay Univ.

Madras: (1) Degree examns. of this Univ. are recognized for admission to the Law Colls. and Teachers' Colls. of Madras Univ.; (2) Mysore B.A. (Science) and B.Sc. who have taken Physics, Chem., Biol., or Maths. for degree course are admitted to Madras medical courses.

Panjab: Mysore B.A. and B.Sc. are admitted to post-graduate study equally with B.A. and B.Sc. Panj.

Benares: recognition similar to Calcutta (1).

Mysore degree examns. = those of Allahabad.

Lucknow: (1) Degree examns. of this Univ. = corresponding examns. of Lucknow Univ. (2) Inter. Examn. of this Univ. admits to courses for degrees in Lucknow Univ.

Dacca: (1) Mysore degree = corresponding Dacca degree for admission to courses of study for degrees. This does not apply necessarily to degrees with honours. (2) Inter. Examinations of this Univ. admit to courses for degrees in Dacca Univ.

Aligarh: all Mysore examns, are recognized.

Annamalai: (i) The Inter. Arts and Inter. Sci. Examns. of this Univ. = the corresponding examns. of Annamalai Univ. (2) The B.A. Examn. of this Univ. = the B.A. Examn. of Annamalai Univ.

Nagpur: (1) B.A. and B.Sc. Examns. of this Univ. = the corresponding examns. of Nagpur Univ. (2) Inter. Arts and Sci. Examns. of this Univ. = corresponding examns. of Nagpur Univ.

Agra: The Inter. and Degree Examns. of this Univ. are recognized by Agra for admission to higher courses of study.

The Univ. has been approved by the Council of Legal Education for purposes of admission to the Inns of Court of London.

Chartered Accountants: Graduates of this Univ. are exempted from the Prelim. Examn. of the Inst. of Chartered Accountants.

The B.A. and B.Sc. Degree Examinations of the Mysore Univ. are recognized for purposes of admission to French Universities with a view to the degree of *Docteur de l'Université* in Arts, Science, and Law.

The Inter. Certificate of this Univ. is accepted as a qualifn. for admission to a degree or other course at a French Univ. subject to attestation by the Universities Bureau of the British Empire. See also Appendix XXI. for recognition by Home Univs.

INSPECTION OF INTERMED. COLLS. not forming parts of Constituent Colls. is made by Profs. deputed by the Council.

Scholarships of Rs. 75 and Rs. 60 respectively are awarded for Research work under the profs. of this Univ. and Post-graduate study outside the State—four each ordinarily.

FEES for courses for B.A. (Pass), Rs. 96+12 (for Science subjects) a yr.; B.A. (Hons.), Rs. 120 a yr.; B.Sc. (Pass), Rs. 120 a yr.; B.Sc. (Hons.), Rs. 144 a yr.; M.A., Rs. 120 a yr., and M.Sc., Rs. 144 a yr.; (B.E., Rs. 150 a yr.; M.B., B.S., Rs. 200 a yr.; B.T., Rs. 80 a yr.; and L.M.P. (Diploma), Rs. 60 a yr.; Inter. Arts, Rs. 72+8 (for Sci. Subjects); Inter. Sci. (all), Rs. 88 a yr.

RESIDENCE. Univ. Hostels at Mysore and Bangalore and Students' Lodges at Tumkur and Shimoga. The average hostel exs. for 9 mos. is about Rs. 220. Residences of students not living in hostels or with their guardians are inspected by members of Students' Residence Committees.

A STUDENTS' INFORMATION BUREAU is maintained.

EXTENSION LECTURES. A Committee appointed by the Univ. Council and consisting of Profs. and others makes arrangements for courses of lectures on suitable subjects for the benefit of those unable to attend the ordinary courses of study at the Univ., and to publish such of the lectures as may be approved by the Committee. There were 15 courses in the year, of which 8 were delivered in Kannada.

Publications. Calendar; Examination Papers; Half-yearly Journal of Arts and Sciences; Pramanasamuccaya of Dinnaga, Chapter I. (A Restoration into Sanskrit from Tibetan); Edition of Harischandramihakavya Sangraha (Kannada); The Mysore Tribes and Castes, 2nd and 3rd vols. (English).

# THE YEAR 1930-31

Benefactions. Mr. and Mrs. B. Ramanna, Rs. 1000; Mr. Amir Hassan, Rs. 4200; Mr. N. K. Narasimhamurthy, Rs. 500; N. S. Subba Rao Memorial Fund, Rs. 500.

New Developments. A course in Physiol. and General and Social Hygiene was included in the B.T. Course. The question of instituting the Ph.D. Degree under consideration of the Faculties. The question of extending the B.T. course to 2 yrs. under the consideration of the Board of Studies. A proposal by the Senate regarding the constitutional reorganization of the Univ. under consideration of Government.

VISITS OF TEACHERS FROM OTHER UNIVERSITIES. Dr. M. N. Saha, D.Sc., F.R.S., Prof. of Physics, Allahabad Univ., on "Thermal Ionization and Stellar Spectra." Mr. F. B. Sayre, formerly Foreign Minister in Siam, now Prof. of Law, Harvard Univ., on "Siam's Struggle for Freedom." Sir S. Radhakrishnan, M.A., D.Lit., delivered the Sri Krishnarajendra Silver Jubilee Lecture on "Philosophy and Life Values."

VISITS OF MEMBERS OF THE STAFF TO OTHER UNIVERSITIES. Mr. L. Rama Rao, M.A., F.G.S., Asst. Prof., Central College, Bangalore, delivered 6 lectures on "Palæontology and Evolution" at Madras.

STUDENTS. Full-time: total, 2781, including 163 graduates.

Degrees obtained. B.A. (Old), 231; B.A. (Pass), 29; B.Sc. (Old), 14; B.Sc. (Pass), 32; M.A., 42; M.Sc., 2; B.T., 34; B.E., 50; M.B., B.S., 7.

# NAGPUR UNIVERSITY

VISITOR-H.E. THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR—H.E. THE GOVERNOR OF THE CENTRAL PROVINCES.

VICE-CHANCELLOR-Rev. Dr. J. F. McFadyen, M.A. Glas., D.D.

TREASURER—RAO BAHADUR V. M. KELKER, M.A. Calc.

REGISTRAR-U. MISRA, M.A., LL.B.

ASSISTANT REGISTRAR-K. R. PANDYA, M.A. All.

#### UNIVERSITY COLLEGE

Law College, Nagpur. Principal—G. R. Deo, B.A., B.L. Lectrs.—J. Sen, B.Sc., LL.B.; Y. V. Jakatdar, B.A. All. and Ox.; V. K. Rajwada, M.A., LL.M. Bom.; G. Trivedi, B.A., LL.B. All.

# OTHER COLLEGES ADMITTED TO THE PRIVILEGES OF THE UNIVERSITY

MORRIS COLLEGE, NAGPUR (M).\*
HISLOP COLLEGE, NAGPUR (H).\*
ROBERTSON COLLEGE, JUBBULPORE (R).\*
COLLEGE OF SCIENCE, NAGPUR (SC).\*
SPENCE TRAINING COLLEGE, JUBBULPORE (T).\*
KING EDWARD COLLEGE, AMRAOTI (K).\*
AGRICULTURAL COLLEGE, NAGPUR (A).\*

\* (M), (H), etc.: symbols for reference to the Colleges.

#### TEACHING STAFF

Agriculture	Ghani, M. A., M.A., M.Litt. Camb.
Allan, R. G., M.A., Dip.Ag. Camb.	(M).
(Dean of Fac.) (A).	Botany and Zoology
Phatak, B. R., B.Ag. (Poona) (A).	Bhatia, G. S., M.Sc. Panj. (A).
Subba Rao, B., L.Ag. (A).	Mahta, D. N., B.A. Ox., F.L.S. (A).
Mishra, S. K., L.Ag. (A).	Dastur, J. F., M.Sc. Bom., D.I.C.
Dhanna Lal, L.Ag. (A).	(A).
Churchill, E. A., B.Sc. (Edin.) (A).	Shrivastava, K. P. (A).
Rahim, M. A., L.Ag. (A).	Dave, B. B., L.Ag. (A).
Arabic and Persian	Varadpande, K. V., M.Sc. (Sc).
Aga-Hyder-Hasan, Syed, M.A.	Moghe, M. A., M.A. All., M.Sc.
All. (K).	Bom. (Sc).
Taqi, S. G., M.A. All. (R).	Nirula, R. L., B.Sc., Ph.D. Lond.,
Iqbal Hussain, Quazi Syed, M.A.	D.I.C. (Sc).
Panj. (M).	Karamsingh, , M.Sc. Panj. (Sc).

Chamistan as also Dharaiga	Patel, K. P., M.A. Bom. and Lond.
Chemistry, v. also Physics Chakravarti, D. N., M.Sc. All.	(R).
(K).	Rowlands, W. S., B.A. Ox. (R).
Tamhankar, G. R., M.Sc. All. (R).	D'Souza, L. P., M.A. (K).
Godbole, S. N., M.Sc. All. (R).	Aga-Hyder-Hassan, Syed, M.A.
Surey, L. S., M.Sc. All. (Sc).	All. (K).
Kale, V. D., B.Sc. All. (H).	Jain, H. B., M.A., LL.B. All. (K).
Gokhale, L. K., M.Sc. (Sc).	Tostevin, F. P., M.A. Ox. (K).
Chandorker, D. V., M.Sc. All. (Sc).	Ganguli, N., M.A. All. (M).
Mishra, R. N., M.Sc. (A).	Chordia, S. S., M.A. All. (M).
Iyer, A. R. P., B.A. Mad. (A).	Guha, R. C., M.A. Dacca (M).
Kayasth, R. N., M.Sc., B.Ag.	Madan Gopal, M.A. All. (M).
Bom. (A).	Karkarey, S. B., M.A., LL.B.
Kulkarni, J. W., M.Sc. (K).	All. $(A)$ .
Paranjpe, D. R., M.Sc. (Sc).	Ghosh, M., M.A. All. (R).
Kappanna, A. N., D.Sc. Dacca	Mitra, M. N., M.A. Dacca (Sc).
(Sc).	Nascar, P. N., M.A., L.T. All. (Sc).
Patwardhan, H. W., M.Sc. (Sc).	Muley, D. S., M.A. (Sc).
Krishnamoorty, K., D.Sc. Lond.	Maolankar, R. B., M.A., LL.B.
(Sc).	(K).
Patwardhan, S. S., M.Sc. (H).	Strachan, J. M., B.A. Camb. (H).
Economics	McFadyen, Rev. J. F., M.A. Glas.,
McFadyen, Rev. J. F., M.A. Glas.,	D.D. (H).
D.D. (H).	Gardiner, T. W., M.A. Camb. (H).
Nanavati, M. H., M.A., LL.B.	Entomology
Bom. (K).	Dutt, G. R., B.A. Panj. (A).
Naidu, V. S., M.A. Mad. (R).	Sontakay, K. R., B.Sc. Nag. and
Raghaviah, W. B., M.A. Mad. (H).	Pusa (A).
Sen Gupta, A. C., M.A. Edin. (M).	History
Dadachanji, B. E., M.A. Bom.	Hunter, G. R., M.A., D.Phil. Ox.
(M).	(M).
Seth, H. C., Ph.D. Lond. (M).	Watchmaker, B. C., M.A. Bom.
Nair, P. D., M.A. (A).	(R).
Singru, M. D., M.A., LL.B. (K).	Tostevin, F. P., M.A. Ox. (Dean,
Munjle, B. H., M.A. (H).	Fac. of Arts) (K).
Education	Fernandez, T., M.A. All. (K).
Macnee, E. A., M.A. Camb. (Prin-	Gardiner, T. W., M.A. Camb. (H).
cipal and Dean of Fac.) (on	Gadre, B. N., M.A. All. (H).
leave) (T).	Hirde Narayan, M.A., B.T. Panj. (M).
Ghosal, S. C., B.A., B.Sc., LL.B.	1 1
All. (T).	Powar, B. L., M.A. All. (R). Sinha, H. N., M.A. All. (M).
Hari Ram, B.A. Panj. (T).	Paul, J. N. W., M.A. All. (R).
Mitra, N. N., B.Sc., L.T. All. (T).	
Kanetkar, G. G., M.A. Bom. (T).	Indian Languages, Modern  Pondso S D M A M O I Pani
	Pendse, S. D., M.A., M.O.L. Panj.
English (M)	(Marathi) (H).
Nascar, P. N., M.A. All. (M).	Banhatti, S. N., M.A., LL.B. Bom. (M).
Verma, Sheo Prasad, M.A., Ph.D. Lond. (R).	Pathak, R. D., M.A. Ben. (R).
Lond. (R).	1 0000000, 10, 10,, 11,111, 2000. (10).

- 31		
Law, v. supra—Univ. College  Mathematics, v. also English Belekar, S. B., M.A. Bom. (M). Mone, T. V., M.A. Bom. (R). Garde, G. K., M.A. All. (H). Agnihotri, G. P., B.Sc. All. (H). Dhar, S. C., D.Sc. Calc. (Sc).	Jwala Prasad, M.A. All. Dharamaraj, M. G., M.A. Mad. ( Physics, v. also Chem. De, M. L., M.A. Calc. Matange, D. G., M.Sc. All. Owen, M., M.Sc. Wales (Dean, E.)	(R). (R). Fac.
Patel, K. P., M.A. Bom. and Lond.		Sc). (K).
(R). Strachan, J. M., B.A. Camb. (H). Panday, K. D., M.A. All. (K). Iyer, K. S. S., B.E. Mysore (Survey also) (A). Raghavachariar, V., M.A. Mad. (Sc). Shastri, N. A., M.Sc. (Sc).	Mukerji, Umadas, M.Sc. (Agnihotri, G. P., B.Sc. All. (Deoras, R. S., M.Sc. All. Thatte, V. N., M.Sc. All. Makoday, G. S., M.Sc. Dabadghao, V. M., M.Sc. (Sandandaria)	(K). (H). Sc). Sc). (R). Sc).
Modern European and Classical	Ganesan, A. S., M.A., Ph.D. Lo	nd.,
Languages Leonie, Sister (French) (M). (Also other members of the staff, who teach other subjects.)	Shahane, S. M., M.Sc. (Kapre, P. K., M.Sc. (	Sc). Sc). Sc). (H).
Mycology Pandit Rao, D. B., B.Ag. Bom. (A).  Persian, v. Arabic	Chaturvedi, S. P., M.A. All. Mirashi, V. V., M.A. Bom.	(K). (M). (M).
Philosophy, v. also Engl. Rowlands, W. S., B.A. Ox. (R). Moses, D. G., B.A. Mad. (H). Ramanatham, P. S., M.A. Mad. (K).	Navlekar, N. R., M.A. All. Bapat, G. B., M.A. Bom. Veterinary Science	(K). (R). (H).
Mukerji, J. N., M.A. Calc. (M).	Zoology, v. Botany	

#### GENERAL INFORMATION

The University was established in 1923. The colleges (except the Agricultural College) were formerly affiliated to the Univ. of Allahabad. The authorities of the Univ. are the Court, Executive Council, Academic Council, and Faculties. The Univ. does not hold a Matriculation Examn., but admits students who have passed (a) the Final Examn. of the Central Provinces Board of High School Education, or an examn. recognized (with the sanction of the Govr.-Genl.-in-Council) as equivalent thereto, or (b) the Matricn. Examn. of an Indian Univ.

FACULTIES. Arts, Science, Law, Education, and Agriculture.

DEGREES. B.A., B.Sc., B.Ag., B.T., M.A., M.Sc., Ph.D., D.Sc., LL.B., LL.M., LL.D.

Publications. Calendar; Annual Report; Examn. Papers; Prospectus, etc.

# THE YEAR 1930-31

Benefactions. The late R. B. D. Laxminorayan, of Kamptee, the bulk of his property, estimated to be of the value of about Rs. 40 lakhs, for the teaching

of "Applied Sci. and Chem." to the Hindu students, domiciled for not less than 6 yrs. in the Central Provinces and Berar. Rao Bahadur N. D. Wadegaonkar, Rs. 500 for a silver medal to the student obtaining his first marks in Maths. in the Inter. Examn. Mr. M. B. Wyawaharay, Rs. 2000 for two gold medals, one to a Hindu male student who stands 2nd in Sanskrit in the B.A. Examn., and the other to a Hindu woman student who obtains highest marks in Marathi in the B.A. Examn. Mr. N. K. Behere, Rs. 1000 for prizes for depressed class students.

CHANGES IN REGULATIONS. Regulation permitting the election of the Vice-Chancellor and the Treasurer by post.

THE STUDENTS INFORMATION BUREAU. The Bureau advises and helps students who go abroad for advanced studies. For the October Session of 1930 the Bureau obtained admission for 6 students to English Universities.

University Library. The library contains 15,758 vols. costing about Rs. 50,000.

Students. 1930: total, 2120, including 510 Post-graduate students.

DEGREES, 1931. B.A., 146; B.Sc., 37; M.A., 33; M.Sc., 8; B.T., 27; LL.B., 84; B.Ag., 9.

# OSMANIA UNIVERSITY, HYDERABAD, DECCAN

PATRON—HIS EXALTED HIGHNESS THE NIZAM, G.C.S.I., G.B.E. CHANCELLOR—MAHARAJA SIR KISHAN PERSHAD BAHADUR, Yamin-us-Saltanat, G.C.I.E.

Vice-Chancellor—Nawab Wali-ud-Daula Bahadur. Registrar—H. A. Ansari, B.A. All.

# PROFESSORS, LECTURERS, ETC.

OSMANIA UNIVERSITY COLLEGE (ARTS, SCIENCE, THEOLOGY, AND LAW) Principal—M. A. R. Khan, B.Sc. Lond., A.R.C.Sc.

History

Principal—M. A. R. Kha
Biology [Asst. Prof. Saiduddin, B.Sc. Bom., M.A. Edin. Bari, Abdul, B.Sc. Bom., B.T. Alig. Asst. Prof. Rahimullah, M., B.Sc. Alig. Acting Asst. Prof.
Chemistry Muzaffaruddin Qureshi, M.Sc. Panj., Ph.D. Berlin Prof. Husain, S., M.Sc. Alig., Ph.D. Lond. Prof. Khan, Mahmood Ahmed, B.Sc. All. 3 Demrs. Asst. Prof.
Economics Prof.
Burney, M. Elias, M.A., LL.B. All. Asst. Prof.
Rahman, H., M.A., LL.B. All. Asst. Prof. (on study leave). Syed, Jafar Hasan, Ph.D. Heidel- berg Asst. Prof.
English Khan, H. Ali, B.A. Ox. Prof. Speight, E. E., B.A. Lond. Prof. Syed, Abdul Latif, B.A. Mad., Ph.D. Lond. Prof. Virabhadrudu, T., M.A., L.T. Mad. Prof.
Ramchandran, S. D., B.A., L.T.

Mad.

Prof. Hasan, Ibne, M.A. All. Asst. Prof. (on study leave). Rahman, M. Jamilur, M.A. Panj. Asst. Prof. Roy Saksena, K. C., M.A. All. Asst. Prof. Asst. Prof. Majid, Abdul, M.A. Husein, Yusuf, D. ès Let. Paris Actg. Asst. Prof. Topa, I. Nath, Ph.D. Freib. Asst. Prof. Languages (Ancient and Modern) Hag, Abdul, B.A. All. (Urdu) Prof. Haq, Abdul, B.Litt., D.Phil. Ox. (Arabic) Nizamuddin, Mohd., Ph.D. Camb. (Persian) Prof. Asst. Profs.: Nabi, Syed Ghulam (Arabic). Al Qaiti, Saif bin Sultan H., M.A., LL.B. (Arabic). Syed Ibrahim (Arabic). Khan, Abdul Hamid (Persian). Husaini, Qari Syed K., M.A., LL.B., Ph.D. Lond. (Persian). Faruqi, L. Ahmad, M.A., LL.B. (Persian).

Khan, Sherwani Haroon, M.A. Ox. Khan, Mirza Ali Yar, B.A. Ox.

Prof.

Asst. Prof.

Asst. Prof.

[Prof.

Lal, Shiv Mohan, M.A., B.T. Alig.

Physics

Husain, Syed Sajjad, M.A. All.

(Urdu) (on study leave).

Qadri, G. Mohiuddin, M.A., Ph.D.

Bom.

1 Demr., 8 Part-time Lecturers.

Khan, Abdur Rahman, B.Sc. Lond. Urdu. Lond. Sarwari, M. A. Q., M.A., LL.B. Rahman, Wahidur, B.Sc. Calc. Prof. Joshi, C. N., M.A. Bom. (Marathi). Ahmad, Nasir, M.A., B.Sc. All. Rao, T. R. Rama, B.A. Mad. (Ka-Asst. Prof. narese). Rao, R. Subba (Telugu). Khan, S. Md. A., B.Sc. Lond., A.R.C.S. Asst. Prof. Shastri, Harihar (Sanskrit). Dhareshwar, G., B.A. Mad. (Sans-2 Demrs. krit). Sociology Khan, Mirza Ali Yar, B.A. Ox. Hasan, Syed Jafar, Ph.D. Heidel-(French). Asst. Prof. Husain, S. Jafar, Ph.D. Heid. Theology (German). Gilani, Manazir Ahsan Asst. Prof. Mathematics Husain, Quazi Mohd., M.A. Panj., Faculty of Muslim Theology B.A., LL.B. Camb. Prof. Siddiqi, Abdul Qadir Prof. Chand, Kishan, M.A. Camb. Prof. Asst. Profs. : Ali, Sh. Barkat, M.A. Asst. Prof. Ali, Sher S. (Philosophy of Islam). Khwaja Mohiuddin, M.A. Mad. Latif, Mufti Abdul (Quran). Asst. Prof. Siddiqi, R., M.A. Camb., Ph.D. Wasay, Abdul (Traditions). Oadir, Abdul, M.A. (Logic). Asst. Prof. Leipz. Fazal, A. (Quranic Exegesis). Morals Magtadir, Abdul (Muslim Law). Ahmad, Zahiruddin, D. Litt. Egypt. Jafari, Osman (Islamic Law) Philosophy Asst. Prof. Hakim, Khalifa Abdul, M.A., LL.B. Panj., Ph.D. Heidelberg Prof. Faculty of Law Bari, Abdul Asst. Prof. Mirza, Hosain Ali Valiuddin, Mir, M.A. Alig., Ph.D. Khan, M. S. A., M.A., LL.B., Asst. Prof. Lond. Ph.D., B.C.L. Ox. Salahuddin, M., M.A. Dacca ,, Musavi, Akbar Ali, B.A. Bom., Rahman, M. W., M.A. Panj. Asst. Prof. Asst. Prof. LL.B. Alig. OSMANIA MEDICAL COLLEGE Principal—Major Farhat Ali, B.A. Mad., M.B., Ch.B. Edin. Anatomy [(On study leave) Prof. Pharmacology Lal, Brij Mohan, M.B., B.S. Hardikar, S. W., M.D. Edin., Prof. Sahagal, S. P., M.B., B.S. M.R.C.P. Actg. Prof. I Demr. Rangareddi, P. V. Actg. Asst. Prof. [Prof. Physiology Rahman, S. A., M.B., Ch.B. Edin. r Demr. [Prof. (Acting). Abhynakar, R. N., M.B., B.S. Pathology Nawaz, Shah, M.B., B.S. Asst. Prof.

1 Demr.

#### ENGINEERING COLLEGE

President-Nawab Ali Nawaz Jung Bahadur, F.C.H.

Civil Engineering Shah, Samiullah, B.Sc. Manc. Prof. Ansari, Ziauddin, M.A., B.Sc.

(Eng.) Manc. Lectr.

Construction

Nariman, P. K., M.Inst.C.E. Prof.

Geology

Abbas, S. Muhammad, B.Sc. Lectr. Pani.

Surveying Ghosh, P. K., B.A. Camb., B.Sc.

Lectr. Calc.

Mechanical Engineering

Hasan, Abdullah, B.Sc. All. Lectr.

Mech. Drawing

Hafizullah, Md., B.Sc. Alig., B.Sc. Lectr. Rang.

Applied Mechanics

Ali, Mehdi, B.E. Mad. Lectr. Khan, M. Afzal Ali, B.Sc. Camb., B.Sc.Tech. Manc. Demr.

3 Part-time Lecturers.

# TEACHERS' TRAINING COLLEGE

Principal-Mirza, Saijad, M.A. Camb. Lecturers-Ali, M. Sardar, B.A. Panj., B.T. Dac.; Ali, Mir Ahmad, M.A. Delhi, M.Ed. Leeds; Shandarkar, D. D., B.A. Bom., B.T. Dac., Ph.D. Lond. 3 Parttime Lecturers.

# ZENANA (WOMEN) COLLEGE

Principal—Miss Amina Pope, M.A. Lond., D.Litt., L.R.A.M. 5 Lecturers and 4 Part-time Lecturers.

## GENERAL INFORMATION

The University was established by a Firman (Order) of H.E.H. the Nizam in April 1917. Work began in Aug. 1919, with the opening of the College. A Bureau of Translation was established in 1917 to provide text-books in Urdu, in which language many of the courses are given. The executive government of the Univ. is in the hands of a Council consisting of 11 members, exclusive of Principals of Colleges. The organization of instruction rests with the Faculties and the Senate, which consists of from 40 to 60 members, including the Council, Univ. Profs., and representatives of graduates and Faculties. The Univ. is entirely financed by the State at an annual cost of £117,248.

LIBRARY. 27,755 vols., 930 MSS. The Staff have also access to the large Asafia Library.

Bureau of Translation. Curator, Md. Enayatullah, B.A.; 18 Translators, Assts. and Advisers. Books published, 177; under preparation, 121; in Press, 55.

FACULTIES. Arts, Law, Islamic Theology, Medicine, Engineering, and Education.

TERMS. July to Dec. and Jan. to April.

The Univ. holds a Matriculation examn., but the Matrice. examns. of other Univs., the Senior Oxford and Cambridge Local examns. and the State H.S.L.C. examn., are accepted as equivalent. The B.A. Courses last 4 yrs., with an Interm. examn. at the end of 2 yrs. The Interm. examn. of other Indian Univs. is accepted as equivalent to this. M.A., M.Sc., and LL.B. courses cover each 2 yrs. after graduation. The B.A. in Theol. requires a 4 yrs.' course in Eng., Philos., and Muslim Theol. The M.B., B.S. courses require 5 yrs. The B.E. course is 4 yrs., 3 yrs. Theoretical at the Coll. and 1 yr. Practical. The B.T. (Bachelor of Training) course is 1 yr.

FEES. Interm.—Rs. 60 p.a.; B.A.—Rs. 80 p.a.; M.A.—Rs. 100 p.a.; LL.B.—Rs. 80 p.a. M.B., B.S.—Rs. 100 p.a. B.E.—Rs. 100 p.a.

RESIDENCE. Hostels attached to various Colleges. Cost of living about Rs. 180 p.a.

Publications. Calendar; Annual Administration Reports.

# THE YEAR 1930-31

New Developments. A two yrs.' course in Pedagogy leading to the degree of B.Ed. is to be introduced, and the present one yr.'s course will lead to a diploma. The Matricn. course revised and extended from 2 to 3 yrs. Arrangements made for research in several subjects.

VISIT OF TEACHER TO CONFERENCES. Prof. Qazi Md. Husain attended the Congress of the Universities of the British Empire, the Anglo-American Conference of Historians, and the British Commonwealth Educational Conference held in London.

RETIREMENTS AND DEATH. Maulvi Syed Shah Mustafa Qadri, Asst. Prof., and Prof. L. M. Mookerji, retired. Mr. Basanti Lal, Lectr., died.

STUDENTS. Full-time, 868. Part-time, 57. Research Scholars, 4.

DEGREES. B.A. (Theol.), 4; B.A. (Arts), 54; B.A. (Sci.), 13; M.A. (Arts), 5; M.Sc., 3; B.T., 7; LL.B., 10.

# THE UNIVERSITY OF THE PANJAB, LAHORE

PATRON-H.E. THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR—H.E. THE GOVERNOR OF THE PANJAB.

VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE—A. C. WOOLNER, C.I.E., M.A.

REGISTRAR-P. N. DUTT, B.A.

JOINT REGISTRAR-ISHWAR DAS, M.A., LL.B.

#### TEACHING STAFF

[(U.) = maintained entirely by the Univ.]

Dean of University Instruction—A. C. Woolner, C.I.E., M.A.

Prof.

Arabic

Shafi, Md., M.A. Camb. Prof. (U.). Sadr-ud-Din, M., D.Litt. Lectr. Lectr. Najm-ud-Din, M. Quraishi, B. A., M.A., Ph.D. Lectr. Astronomv

Lal, P. Samuels, M.A., B.Sc., F.R.A.S. Reader. LaI, Sardari, B.Sc., B.T. Demr.

Botany Kashyap, Rai Bahadur S. R., B.A. Camb., M.Sc., I.E.S.

Chaudhuri, H., Ph.D.

Reader (U.). Sethi, M. C., M.Sc. Lectr. Ghose, S. L., M.Sc., Ph.D., F.L.S. Lectr.

Singh, Charan, M.Sc. Lectr. Demr. (U.). Joshi, A. C. Chemistry, Physical

Bhatnagar, S. S., D.Sc., F.Inst.P. (Director of Lab.) Prof. (U.). Dunnicliff, H. B., M.A., Sc.D., F.I.C., I.E.S. Prof.

Ray, J. N., M.Sc., Ph.D. Reader (U.).

Lecturers: Yajnik, N. A., M.A., A.I.C.

Venkataraman, K., M.Sc., Ph.D.

Datta, G. L., M.A., Ph.D.

Singh, Narinjan, M.Sc.

Singh, Ram, M.Sc.

Demr. (Org. Chem.) (U.).

Lal, Pyare, M.Sc.

Demr. (Inorg. Chem.) (U.).

Kapur, A. N., M.Sc.

Demr. (Phys. Chem.) (U.).

Economics

Jain, L. C., M.A., Ph.D.

Reader (U.).

College Profs. co-operating: Sondhi, G. D., M.A., I.E.S.

Lucas, Rev. E. D., M.A., D.D.,

Ph.D. Bali, A. N., M.A.

Parshad, I. Durga, M.A., Ph.D.

Kramet, U., B.A.

English (for Science Students) Sharma, D. C., M.A.

French [Part-time Lectr. (U.). Jones, Lionel

German [Part-time Lectr. (U.). Quraishi, B. A., M.A., Ph.D.

History [Prof. (U.). Bruce, J. F., B.A. Ox., M.A. Syd. Garrett, Lt.-Col. H. L. O., M.A.,

I.E.S. Prof. Kohli, S. R., M.A. Lectr.

Prof.

Wilson, Rev. R. L., M.A. Lectr. Weir, Rev. J. B., M.A. Lectr. Khanna, A. R., M.A. Lectr. Kalia, B. R., M.A. Lectr. Mathematics [Prof. (U.). Rao, C. V. H., B.A. Camb., M.A. Lecturers: Raj, Hem, M.A. Lal, P. Samuels, M.A., B.Sc., F.R.A.S. Gupta, S. N. Das, M.A. Lal, Mukand, M.A. Ram, Sita, M.A. Raj, Mul, M.A. Hamid, Abdul, M.A. Chandra, Vidya, M.A. Persian Iqbal, Md., M.A., Ph.D. Prof. (U.). Maitra, K. M., M.A. Calc. Lectr. Fazl-i-Haq, Q., M.A. Lectr.

Sanskrit Woolner, A. C., C.I.E., M.A. Ox. P'pal, Oriental Coll. (U.). Sarup, Lakshman, M.A., D.Phil. Prof. (U.). Ox. Lecturers: Singh, G., M.A., LL.B. Sirkar, M. K., M.A. Aggarwal, J. N., M.A. Dutt, Ganesh. Das, Banarsi, M.A., Ph.D. Raghuvira, , M.A., D.Litt. Deva, Charu, M.A., M.O.L. Zoology

Shairani, Mahmud

Matthai, G., M.A., Sc.D., F.L.S.. I.E.S. Kumar, Anand, M.A. Camb. Reader (U.). Nath, Vishwa, M.Sc., Ph.D. Lectr. Arora, G. L., M.Sc. Demr. (U.).

# Honours School in Technical Chemistry DIRECTOR-Prof. P. CARTER SPEERS, B.Sc.

Lectr.

Chemistry Bhatnagar, S. S., D.Sc., F.Inst.P. Dunnicliff, H. B., M.A., Sc.D., F.I.C., I.E.S. Ray, J. N., M.Sc., Ph.D. Yajnik, N. A., M.A., A.I.C. Venkataraman, K., M.Sc. (Tech.), Ph.D., A.I.C.

Husain, Aulad

Industrial Chemistry Speers, P. Carter, B.Sc. Chand, Mehr, M.A., M.Sc. Dean, E. T., B.A., M.Sc. Khosla, S. R., A.M.S.T., F.C.S. Joshi, M. L., M.Sc.

Dutt, Mahesh, M.Sc. Physics Benade, J. M., M.A. Engineering Principal, Maclagan Engineering

Grover, I. S., B.Sc.

College, Moghulpura, Lahore. Economics Lucas, Rev. E. D., M.A., D.D., Ph.D.

Parshad, I. Durga, M.A., Ph.D. Demrs.:

Chandra, Ram, M.Sc. Ram, Nathu, M.Sc.

#### University Colleges

ORIENTAL COLLEGE, LAHORE. Principal—A. C. Woolner, M.A., C.I.E. Vice-Principal—Md. Shafi, M.A.

LAW COLLEGE, LAHORE. Principal-C. L. Anand, M.A., LL.B. Lond. Whole-time Lectrs.—Rahim Bux, M.A., LL.B.; C. L. Mathur, M.A., LL.B. Camb.; D. R. Mahajan, M.A., LL.B. 9 Part-time Lectrs.

THE HAILEY COLLEGE OF COMMERCE. Principal—J. W. Thomas, B.Sc., B.Com. Lond.

#### GENERAL INFORMATION

Established in 1882, the University confined its activities, until recently, mainly to examinations, the control of affiliated institutions, and the provision of instruction in its Oriental and Law Colleges. It has since 1919 undertaken the maintenance of Professors and Readers and co-ordination of higher teaching in other subjects. Honours Schools in Botany, Zool., Maths., Chem., and Technical Chem. are instituted in Lahore. Post-graduate teaching in Econ., Arabic, Sanskrit, Persian, and Hist. has been arranged. Senior teachers in the local colleges, partially relieved of routine work, have supplemented the teaching of Univ. Profs. and Readers. Three Improved types of Honours Papers have since been substituted in English, Maths., Hist., Econ., Philos., Sanskrit, Arabic, Persian, Physics, and Geol.

LIBRARY, 69,355 vols. on Sept. 30, 1930 (arranged on Dewey Decimal system). Chemical Laboratory. Astronomical Observatory.

FACULTIES. Oriental, Arts, Law, Medicine, Science, Agriculture, Commerce.

Degrees, B.A., M.A., D.Lit.; B.Sc., M.Sc., D.Sc.; B.Sc. (Agr.), M.Sc. (Agr.); LL.B., LL.M., LL.D.; M.B., B.S., M.S., M.D.; B.T.; (in Oriental Learning) B.O.L., M.O.L., D.O.L.; (in Commerce) B.Com.

In the Faculty of Oriental Learning a 2 yrs.' course from Matricn. leads to an Interm. examn., and further courses of 2 yrs., I yr., and 2 yrs. to the B.O.L., M.O.L., and D.O.L. successively. Examns. are also held for Proficiency, High Proficiency, and Honours in Arabic, Sanskrit, and Persian. Honours admit to the Oriental titles: Maulvi Fazil (Arabic), Shastri (Sanskrit), and Munshi Fazil (Persian); and High Proficiency to Maulvi Alim, Visharada, and Munshi Alim. Similar examns. are held in Urdu, Hindi. Panjabi. and Pashto.

The B.T. is open to anyone who after graduating in any faculty other than the Oriental has undergone a r yr. course at an Affiliated Training Coll., or any trained S.A.V. graduate teacher not less than eighteen months after his passing the S.A.V. examn.

The B.Com. is open to anyone who has passed the Intermediate Examination of the Panjab University and has taken a 3 yrs.' course, passing the First Examination in Commerce at the end of the first year.

Regulations have been framed for examns. for the Dipl. and the Higher Dipl. in Arts for Women with the object of training the general intelligence and character of future wives and mothers, rather than to provide any professional qualifications.

RECOGNITION OF OTHER INSTITUTIONS. An equivalent examn. of any recognized Univ. may be accepted in lieu of Interm. Arts or Science, B.A. or B.Sc., for the purposes of admission to a higher examn.

Scholarships for Graduates. Several of from Rs. 20 to Rs. 25 p.m. for 2 yrs. in Oriental Studies, Arts, and Science. A Post-graduate State Scholarship open to graduates of the Univ. between 21-25 yrs. of age for study in a recognized Univ. in the United Kingdom. Candidates must be students of a Coll. in the Panjab affiliated to the Univ. Research studentships tenable for from 2 to 4 yrs. in Oriental Hist., Sanskrit, Pali or Prakrit, Arabic, Panjabi, Science, and Maths.

RESIDENCE. Undergraduates in Lahore Arts Colleges are ordinarily required to reside in College Hostels or in hostels recognized by the Univ.

Publications. Calendar (Sept.), Rs. 5/8/0; University Gazette (published monthly, Oct. to June), Rs. 4 p.a. or annas 8 per copy; 18 books of critical

research work in Oriental Classical Langs. published from the Panjab Univ. Oriental Publications Fund; and II text-books in English, Classical Langs., and Vernaculars.

# AFFILIATED COLLEGES RECOGNIZED IN DEGREE OR DIPLOMA COURSES

B.A., M.A., etc.—A., B., C., E., Ec., G., H., M., Ph., Ps., S., Z., P., Psych., U., Hi., Pb. = Affiliated up to B.A., M.A., etc., in Arabic, Botany, Chemistry, English, Economics, Geology, History, Maths., Philos., Physics, Sanskrit, Zoology, Persian, Psychol., Urdu, Hindi, and Panjabi.

#### Agriculture

Amritsar, Khalsa College. B.Sc.Agr. Prof. of Agr.—Indar Singh, B.Sc. Wales.

Lyallpur, Agricultural College (Govt.). B.Sc.Agr., M.Sc.Agr. Research Depts. in Agr., Bot., Chem. Principal, and Prof. of Chem. and Agricultural Chemist to Govt.—P. E. Lander, M.A. Camb., D.Sc., A.I.C.

#### Arts and Science

Amritsar, Khalsa College. M.A.—Ec., Maths., E., H. Large Collegiate School attached. Principal—Sardar Bahadur Bishen Singh, B.A.

Bahawalpur, Sadiq-Egerton College. B.A.—E., S., A., P., M., Ph., H., Ec., Urdu. Principal—M. A. Zahidie, B.A.

JAMMU, Prince of Wales College. M.A.—Ec.; M.Sc.—G. Principal, and Prof. of Physics—Sewa Ram Suri, M.Sc.

Jullundur, D.A.V. College. B.A.—E., M., Ec., H., S., P., Ph., Hindi, Urdu. Principal—Pt. Mehr Chand, B.A.

LAHORE, Dayanand Anglo-Vedic College. M.A.—Ec., S. Principal, B. R. Rattan, B.A., B.T.

LAHORE, Dyal Singh College. M.A.—M., Ph., P. Principal, and Prof. of Mathematics—Pt. Hem Raj, M.A.

LAHORE, Forman Christian College. M.A.—E., Ec., H., M., Psych.; M.Sc.—M., C. Supported and controlled through Board of Trustees by Panjab Mission of American Presb. Church. Has a Dept. of Indust. Chem. Principal, and Prof. of Econ.—E. D. Lucas, M.A., D.D., Ph.D. Columbia.

Lahore, Government College. M.A.—A., C., E., Ec., H., M., Ph., Ps., S., Psych.; M.Sc.—B., C., M., Ps., Z. Principal, and Prof. of History—Lt.-Col. H. L. O. Garrett, M.A., I.E.S. Profs.: Arabic—M. Sadr-ud-din, D.Litt.; Bot.—S. R. Kashyap, B.A. Camb., M.Sc., Rai Bahadur; Econ.—G. D. Sondhi, B.A. Camb., M.A., I.E.S.; English—E. C. Dickenson, M.A.; Maths.—Mukand Lal, M.A.; Zool.—G. Matthai, M.A. Camb., Sc.D.; Chem.—H. B. Dunnicliff, M.A., Sc.D., F.I.C.; Philos.—G. C. Chatterji, M.A.; Sansk.—Gulbahar Singh, M.A., LL.B.; Physics—J. B. Seth, M.A., B.Sc.; Persian—Fazl-i-Haq, Qazi, M.A.

LAHORE, Islamia College. M.A.—A., Ph., Ec., H., M., and P. For Muhammadans. Principal, and Prof. of Eng.—M. A. Ghani, M.A. Profs.: Arabic—M. Asghar Ali, M.O.L.; Philos.—A. Hamid, M.A.

LAHORE, Sanatana Dharma College. M.A.—Sanskrit and Economics. Principal, and Prof. of Econ.—Brij Narain, M.A.

LAHORE, Kinnaird College for Women. B.A.—E., H., Ph., M., Ec., S., P., Urdu, Hindi. Principal—Miss I. T. McNair, M.A.

LAHORE, College for Women. B.A.—E., M., H., Ph., S., G., Urdu, Hindi, Panjabi; B.Sc.—E., C., B. Principal—Miss G. Harrison, B.A.

PATIALA, Mohindra College (State). No fees. M.A.—M., Ph. Principal, and Prof. of Econ.—B. N. Khosla, M.A. Prof. of Maths.—B. Ram, M.A., LL.B.

Peshawar, Edwardes College. B.A.—E., Ec., H., M., S., P., Urdu, Hindi. Principal, and Prof. of English and Econ.—Rev. C. A. Bender, M.A.

Peshawar, Islamia College. For Muhammadans. 4 miles from Peshawar. Residential. Large Collegiate School attached. M.A.—M.; B.A.—A., E., Ec., H., M., Persian, Ph., Urdu; B.Sc.—E., B., C., Ps. Principal, and Prof. of English and Economics—H. Martin, O.B.E., M.A. Ox.

RAWALPINDI, Gordon College. B.A.—E., S., P., Ph., H., M., A., Ec., Hindi, Panjabi, Urdu; B.Sc.—E., Astr., B., C., Phys. Principal, and Prof. of English—E. L. Porter, M.A., D.D.

SIALKOT, Murray College. Maintained by Panjab Mission of Church of Scotland. B.A.—A., E., Ec., H., M., Persian, Ph., S., Urdu, Hindi, Panjabi. Principal, and Prof. of English—Rev. J. Garrett, M.A.

SRINAGAR, Sri Pratap College (State). M.A.—M., Ph., S. Principal, and Prof. of English—L. MacDermott, B.A.

#### Engineering

Moghalpura, Maclagan Engin. College. Principal—Capt. H. Whittaker, B.Sc.

#### Medical

Lahore, K.E. Medical College (Govt.). M.D., M.S., M.Sc.—Physiol. Principal, and Prof. of Medicine—Lt.-Col. J. J. Harper Nelson, O.B.E., M.C., M.B., Ch.B., M.D., F.R.C.S. Edin., I.M.S. Other Profs.: Anat.—Major V. R. Mirajkar, L.R.C.P., F.R.C.S., I.M.S.; Forensic Med.—Civ. Surgeon, Lahore; Hygiene—K. B. K. A. Rahman, M.B., Ch.B.; Mental Dis.—Major C. J. Lodge Patch, M.C., L.R.C.P., L.R.C.S. Edin., L.R.F.P.S. Glas., I.M.S.; Midwifery—Major S. N. Hayes, F.R.C.S. Eng., L.R.C.P. Lond., I.M.S.; Path.—Rai Bahadur Jiwan Lal, M.D., B.S.; Clin. Med.—Lt.-Col. T. A. Hughes, M.A., M.D. Dublin, D.P.H., M.R.C.P., I.M.S.; Physiology—Major H. S. Anand, M.B., Ch.B., D.P.H., I.M.S.; Surgery—Lt.-Col. P. B. Bharucha, D.S.O., O.B.E., L.M. & S. Bom., L.R.C.P., F.R.C.S., I.M.S.; Operative Surg.—Lt.-Col. R. H. Bott., C.I.E., M.B., B.S., L.R.C.P., F.R.C.S., I.M.S.; Dis. Eye, Lear, and Throat—Lt.-Col. A. M. Dick, O.B.E., M.B., Ch.B. Edin., L.R.C.P. Lond., F.R.C.S., I.M.S.; Pharmacology—Lt.-Col. D. H. Rai, M.Sc., M.D. Edin., M.R.C.S., I.M.S.; I.M.S.

Delhi, Lady Hardinge Medical College for Women. M.B., B.S. Principal —Mrs. M. O'Brien Beadon, M.B., B.S.

# Teaching

LAHORE, Central Training College (Govt.). B.T. Principal — J. E. Parkinson, M.A., I.E.S.

# THE YEAR 1930-31

New Developments and Posts. Military Science has been introduced as an additional optional subject in the Agric. Examns. Arrangements have been made for instruction in German and French.

Students. Full-time: total, 14,437, including 696 graduates.

DEGREES. B.A., 1185; B.Sc., 80; M.A., 132; B.T., 66; M.Sc., 21; LL.B., 175; B.Sc. (Ag.), 40; M.B., B.S., 40; B.Com., 29.

### PATNA UNIVERSITY

CHANCELLOR-H.E. THE GOVERNOR OF BIHAR AND ORISSA.

VICE-CHANCELLOR—The Hon. Mr. JUSTICE T. S. MACPHERSON, C.I.E., M.A. Edin., I.C.S.

REGISTRAR-RAI BAHADUR KAMALA PRASAD, B.A., L.T.

ASST. REGISTRAR-M. A. HOSAIN, M.A. Alld.

Ramdın Reader in Hindi

Pandit Ayodhya Singh Upadhyaya—The Origin and Growth of the Hindi Language and its Literature.

### GENERAL INFORMATION

Founded Oct. 1, 1917. Most of the teaching is conducted in the "admitted" Colleges, v. infra.

LIBRARY, 9550 vols.

FACULTIES. Arts, Science, Educn., Law, Engineering, Medicine.

DEGREES. B.A., M.A., Ph.D., B.Sc., M.Sc., D.Sc., B.Ed., B.L., M.L., D.L., B.E., M.B., B.S., M.S.

RECOGNITION of examns. is accorded by Ox., Camb., Dub., Edin., and the General Med. Council.

POST-GRADUATE SCHOLARSHIP. A Post-graduate State Scholarship, £300 p.a. plus 15 per cent when held at an Oxford or Cambridge Coll., or £250 p.a. plus £40 when held at other Univs. Thenable for 2 yrs. Candidates must be between 21-25 yrs. of age on March 31 in the year of selection, and must hold the M.A., M.Sc., or B.A. Hons. or B.Sc. Hons. of the Univ.

PUBLICATIONS. Calendar, Rs. 4; Courses of Studies for each Examination, as. 6; Question Pamphlets: B.A. and B.Sc. Examns., Re. 1/4; All other Examns., as. 12; Regns., Re. 1; Minutes, Rs. 2; Matriculation Selections (Sansk., Pers., Engl.), Re. 1/8/0 each.

### ADMITTED COLLEGES

Bankipur, Bihar National College. B.A., B.Sc. Principal, and Prof. of Philos.—D. N. Sen, M.A. Other Profs.: Chem.—B. K. Chowdhry, M.Sc. Engl.—S. M. Huq, M.A.; C. T. Mitra, M.A. Cal. History.—H. C. Rai Chaudhary, M.A. Maths.—L. K. Ghosh, M.A.; U. C. Dutta, M.A. Cal. Persian.—A. Sayid, M.A. Philos.—G. P. Hazari, M.A. Physics.—S. N. Roy, M.Sc. Cal.; R. K. Rao, M.A. Cal., Ph.D. Sanskrii.—S. N. Bhattacharayya, M.A. 20 other Profs., Lectrs., and Demrs.

Bankipur, Patna College. M.A. Principal—H. Lambert, M.A. Camb. Professors: Persian and Arabic—Azimuddin Ahmad, Ph.D. Leip. Econ.—H. R. Batheja, M.A. Ox. Engl.—J. S. Armour, M.A. Glas.; J. L. Hill, M.A. Ox. History—S. C. Sarkar, M.A. Cal., Ph.D. Ox.; Y. J. Taraporevala, M.A. Camb. Maths.—H. N. Ganguli, M.A. Cal. Philos.—C. C. Sinha, M.A.

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Sanskrit—Dr. Hari Chand Sastri; A. P. Banerji Shastri, Ph.D. Ox. 30 other Profs. and Lectrs.

BHAGALPUR, Tej Narain Jubilee College. B.A., B.Sc. Principal, and Prof. of English—S. Sen, M.A. Profs.: Chem.—H. L. Das Gupta, M.A. Hindi—H. Chowdhury, M.A. History—N. M. Acharya, M.A.; K. B. Gupta, M.A. Maths.—G. Mitra, M.A. Cal. Persian—A. Majid. Philos.—B. C. Sinha, M.A. Physics—S. N. Banerjee, M.Sc. Pol. Econ.—T. N. Basu, M.A. Sansk.—K. C. Chakravarti, M.A. 22 other Profs., Lectrs., and Demrs.

Cuttack, Ravenshaw College. M.A., B.Sc., B.L. Principal—T. C. Orgill, M.A. Camb. Engl.—Barada Kanta Chatterji, M.A. Cal.; Krutibas Samantarai, M.A. Cal. Other Profs.: Botany—P. K. Parija, B.A. Camb.; D. B. Mukherji, M.A. Cal. Chem.—B. K. Singh, M.A. Camb., D.Sc. (Dub.). Econs.—S. C. Bardhan, M.A. Hist.—N. K. Sanyal, M.A. Cal.; N. C. Banerji, M.A. Cal. Law—S. C. Chakravarti, B.L. Cal. Maths.—S. K. Ganguli, M.A.; H. K. Das, M.A. Cal.; P. N. De, M.A. Lond., M.Sc. Cal. Persian and Urdu—A. M. M. Latif. Philos.—M. M. Senapati, M.A.; B. B. Roy, M.A. Cal. Physics—N. Misra; S. C. Tripathi, B.A. Camb. Sanskrit and Oriya—K. N. Das, M.A.; A. Mahanty. 15 other Profs., Lectrs., and Demrs.

CUTTACK, Training College. Diploma in Education.

HAZARIBAGH, St. Columba's College. B.A. Principal, and Prof. of Eng.—G. C. P. Stevenson, Sen. Mod., B.D. (T.C.D.). Profs. of Philos.—A. F. Markham, M.A. Ox.; K. S. Ghosh, M.A. Other Profs.: Chem.—H. C. Mukharji, M.A. Econ.—S. K. Bose, M.A. History—J. N. Maitra, M.A. Maths.—R. Mukherji, M.Sc.; C. C. Rai Chaudhuri, B.A. Pers.—Md. Muslim, M.A., M.O.L. Physics—S. C. Bhattacharya, M.A. Calc. 11 other Profs.

MUZAFFARPUR, Greer Bhumihar Brahman College. B.A., B.Sc. Principal—W. V. Duke, M.A. (T.C.D.). Profs.: History—S. Basu, M.A. Cal. Arabic and Pers.—S. A. Majid. Chem.—R. K. Basu, M.Sc. Econ.—B. B. Mukherjee, M.A., B.L. Engl.—B. Chatterji, M.A.; G. H. Sinha, M.A. Cal.; B. Prashad, M.A. Cal. Maths.—K. P. Das, M.Sc. Philos.—J. K. Sarkar, M.A. Physics—R. C. Sen, M.A. Sansk.—I. Datta, Ph.D. 14 other Profs., Lectrs., and Demrs.

Patna, Bihar College of Engineering. B.E. Principal—L. D. Coueslant, B.Sc.Lond., M.I.Mech.E., Wh. Ex., M.I.E. India. Senr. Prof.—J. Tullis, B.Sc. Glas. Profs.: B. Sanjana, B.Sc. Glas., L.C.E. Bom. (Civil Eng.); S. C. Ghose, B.Sc. Glas. (Mech. and Elect. Eng.). 14 other Profs. and Lectrs.

Patna, Law College. B.L. Principal—S. S. Alam, M.A., LL.B. Camb. Vice-Principal—S. M. Shareef, M.A. Camb. Profs.: S. N. Dutta; B. K. Sen, M.A., B.L.; S. K. Mozumdak, M.Sc.; S. Prasad, M.A., B.L.; A. N. Lal, M.A., B.L.; S. M. Abdul Moin, M.A., B.L.; G. D. Prasad Singh, B.A., B.L.; S. H. Kazimi, B.A., B.L.; S. A. Manzar, B.A. Ox.; B. K. Sinha, B.A., B.L. Calc.; B. P. Jamaar, M.A. Camb.; Syed Hasan, B.A., B.L.; Bhubneshwar Prasad Singh, B.A., B.L.; Anand Prasad, B.A., B.L.

Patna, Prince of Wales' Medical College. M.B., B.S. Principal—Lt.-Col. D. Coutts, M.D., Ch.B., I.M.S. Profs.: Surgery—Major H. G. Alexander, F.R.C.S., I.M.S. Obstetric Medicine—Lt.-Col. D. Coutts, M.D., Ch.B., I.M.S. Pathology—Major A. N. Bose, M.B.E., M.B. Calc., M.R.C.P., D.T.M. & H. Camb., M.D. Laus., F.R.C.P.E., I.M.S. Physiology—C. Reid, M.A., M.D. Aberd., D.Sc., Ph.D., D.P.H. Pharmacology—T. N. Banerji, M.B. Calc., M.R.C.P. Lond. and Edin., D.T.M. & H. Lond. Anatomy—H. Hyder Ali Khan, F.R.C.S. Edin. Biology—S. S. Chaudhury, M.A. All., M.Sc. Luck. 23 other Profs., Lectrs., and Demrs.

PATNA 647

Patna, Science College. M.Sc. Principal—K. S. Caldwell, B.Sc. Wales, Ph.D. Leip., F.I.C. Professors: Maths.—W. W. T. Moore, M.A. Dub.; Rai Sahib A. T. Chatterji, M.A.; D. N. Sen, M.Sc. Cal., B.A. Camb.; P. N. Das Gupta, M.Sc. Cal., Ph.D. St. And. Chem.—A. S. Khan, M.Sc. Manc.; R. C. Roy, D.Sc. Lond.; C. B. Roy, M.A. Cal.; P. B. Gangali, D.Sc. Lond. Physics—A. T. Mukerji, M.A.; K. Prasad, B.A. Camb.; K. Dayal, M.Sc. Cal.; K. N. Banerji, M.Sc. Cal.; D. K. Bhattacharji, M.A. M. Phys.—S. P. Prashad, B.A. Camb. 31 other Profs., Lectrs., and Demrs.

Patna Training College. B.Ed. Principal—J. H. Thickett, M.A. Camb. Profs.: W. W. Henderson, M.A., Dip.Ed. Glas.; Saiyid Tahiruddin Ahmad, B.A., L.T.; J. N. Ghosh, M.Sc., B.T.; N. C. Chatterji, M.A. Cal., Dip.Ed.

### THE YEAR 1930-31

Honorary Degrees. LL.D.—Sir Syed Sultan Ahmed, lately Vice-Chancellor of the Univ.

Students. Full-time: total, 4547, including 727 graduates.

DEGREES. B.A., 343; M.A., 65; B.Sc., 44; M.Sc., 6; B.L., 129; B.Ed., o; Final M.B., B.S., r3; B.C.E., r7.

### UNIVERSITY OF RANGOON

VISITOR-H.E. THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR-H.E. THE GOVERNOR OF BURMA.

Pro-Chancellor-Hon, U. Ba Tin.

VICE-CHANCELLOR—Hon. Sir Benjamin H. Heald, V.D., M.A , I.C.S. (on leave).

Pro-Vice-Chancellor—Hon. Mr. Justice Maung Ba, K.S.M., B.A. Registrar—A. Campbell, M.C., M.A. Edin., I.E.S.

### CONSTITUENT COLLEGES AND THEIR STAFFS

University College: Principal—D. J. Sloss, C.B.E., M.A. Liv., I.E.S.

Biology

Meggitt, F. J., M.Sc., Ph.D. Birm., I.E.S. Prof. Barnard, Mrs. D. E., B.Sc. (Botany) Lectr. Khanna, L. P., B.Sc. Asst. Lectr. 2 Demrs.

Chemistry

Peacock, D. H., M.A. Camb., D.Sc. Lond., F.I.C., F.C.S., I.E.S.

Prof.
Goldsworthy, L. J., M.A., B.Sc.
Ox., I.E.S. Lectr. (on leave).
Venkateswaran, R., M.A. Mad.,
Ph.D. Lond. Asst. Lectr.
Ba, U, B.A. Calc., A.T.M., F.C.S.

Asst. Lectr.
Tha, U. Po, M.Sc. Asst. Lectr.
5 Demrs. and Asst. Demrs.

Economics

Solomon, E. H., M.A. Camb., F.R.E.S. Prof. (Offg.). Khanna, B. M., M.A. All., LL.B. All., F.S.S., F.R.E.S.

Asst. Lectr. Dube, R. C., M.A. All. Asst. Lectr.

Engineering, Civil
Charry, H. C. F., M.Sc., I.S.F.

Cherry, H. C. E., M.Sc., I.S.E. Prof. (Offg.). Gould, A. J., B.Sc. (Eng.), I.E.S. Lectr. (on leave).

Moss, D., B.Sc. (Eng.) Lectr. Naidu, T. V. R., B.Sc. (Eng.)

Jaidka, R. C. Asst. Lectr.
Edulgee, E. M. Workshop Supt.

English [Prof. Fraser, W. G., M.A. Aberd., I.E.S.

Rhodes, F. W. W., M.A. N.Z., B.A. Ox. and Aberd. Lectr. Pearn, B. R., M.A. Lond. Lectr. Kingsley, Miss M., M.A., B.T. Calc.,

B.A. Ox. Lectr.
MacKenzie, A. C., M.A. Aberd.

Htin-si, L., M.A. Calc. Asst. Lectr. Jembunathan, S., M.A.

Asst. Lectr.
Gopalakrishna Aiyar, P. G., M.A.,
L.T. Mad. Asst. Lectr.
9 Tutors.

Forestry

Cochrane, R. A., M.A., B.Sc., I.F.S. Prof.

Sutherland, J. W. R., I.F.S. Lectr.

Geology and Geography
Beasley, C. G., M.A. Lond. Prof.
Chatterjee, S. P., M.Sc. Lectr.
I Demr.

RAN

History

Hall, D. G. E., M.A. Lond.,
D.Litt. Lond., I.E.S. Prof.
Luce, G. H., M.A. Camb., I.E.S.
Lectr.

Brookes, A., M.A. Camb., I.E.S.
Lectr.
Desai, W. S., M.A. Bom. and
Camb. Asst. Lectr. (on leave).
3 Tutors.

Law
Eggar, A., M.A. Camb.
Bilimoria, J. C., B.A. Bom. Lectr.

Eggar, A., M.A. Camb. Prof. Bilimoria, J. C., B.A. Bom. Lectr. E-Maung, U, M.A., LL.B. Camb. Pt.-time Lectr. Mathematics [Prof. Owen, L. G., M.A. Ox., I.E.S.

Lewis, E. G., B.Sc. Lectr. (on leave).

Asst. Lecturers: Haldar, K. P., M.A., M.Sc. Calc. Ka, U, M.A. Thon, U Po, M.Sc. 6 Tutors.

Oriental Studies

Tin, Pe Maung, M.A. Calc., B.Litt. Ox., I.E.S. Prof.

Asst. Lecturers:

Cassim, A., B.A. Calc. (Pali).

Win, U Lu Pe, M.A. Calc. (Burmese).

6 Tutors.

Philosophy

St. John, W., B.D., Ph.D. Chic.
Prof.

Slater, Rev. R. L., M.A. Lectr. 1 Tutor.

Physics

Aiyar, N. C. Krishna, M.A. Mad., F.I.P., I.E.S. Prof. Quayle, W. C., M.A. Liv. Lectr. Basu, R. M., B.Sc. Lond.

Asst. Lectr. 8 Demrs. and Asst. Demrs.

Judson College: Principal—W. St. John, B.D., Ph.D. Chicago.

Biology

Gates, G. E., M.A. Harv. Lectr. Keyser, W. L., B.A. Bucknell, M.A. Penn. Lectr.

Burmese

Pe, U Tun, M.A. Calc., B.L., M.R.A.S., M.L.C. Lectr. I Instr.

Chemistry
Lecturers:

Scherling, C. C., M.A. Camb. (on leave).

Shivers, Marion E.,M.A.Columbia. Guha, S. C., M.A. Calc.

1 Demr.

Economics

Andrus, J. R., A.B. Redlands, M.A. Calif. Lectr. Ohn, U Tin, B.Sc. Lond. Lectr.

English Literature

Lecturers:

Rickard, S. H., B.A. Bucknell (on leave).

Hunt, Helen K., M.A., Dean of Women

Gyi, J. Kan, M.A. Chic. Wiatt, G. E., Ph.B. Denison Dickason, F. E., M.A. Chic. Meader, Miss Pally, M.A. Col. Slater, Rev. R. L. (Pt.-time). 2 Instrs.

History

Stuart, Miss B. J., B.A., Ph.D. Thomas, E., B.A. Asst. Lectr.

[Lectr.

Mathematics

Campbell, W. B., B.Sc. (M.E.)
Penn., M.A. Corn. Lectr.
Ghatak, M., M.A. Calc. Lectr.
Johnson, A. N., M.Sc. Asst. Lectr.

Pali

Chaudhury, R., M.A. Calc. Lectr. Pe, U Tun, M.A. Calc., B.L., M.R.A.S., M.L.C. Lectr. I Instr. 650 INDIA

Physics Philosophy Lectr. Lecturers: St. John, W., B.D., Ph.D. Chic. Smith, D. O., B.A. Redl., B.Sc. Calif. Tech. (on leave). Jury, G. S., M.A. Yale Lectr. Basak, B., M.Sc. Calc. Bu, U. Hla, M.A. Calc. Lectr. Majumdar, N. C., M.Sc. Calc. Asst. Lectr. I Asst. Lectr. 1 Demr. Medical College Principal—Lt.-Col. T. F. Owens, I.M.S. (on leave). Offg. Principal— Lt.-Col. L. A. H. Lack, M.B., Ch.B. Edin., I.M.S. Assistant-Major W. H. Passanha, I.M.D. Ihaveri, M. H., M.B., B.S. Bom. Anæsthetics Singh, Randhir, M.B.E. Lectr. Pathology and Bacteriology Anatomy Martin, Major C. de G., M.B., Lack, Lt.-Col. L. A. H., M.B., Prof. (on leave). I.M.S. Ch.B. Edin., I.M.S. Malone, Major R. H., M.D., I.M.S. Guha, S. C., M.B. Calc. Asst. Lectr. Prof. (offg.). Bacteriology, v. Pathol. Kundu, K. P., M.B. Asst. (on leave). Contagious Diseases [Lectr. Gollerkeri, P. G., M.B., B.S. Pillai, K. P., M.B., B.S., D.P.H. Asst. Lectr. Dentistry [Lectr. I Demr. Drinkall, J. R., L.D.S., R.C.S. Materia Pharmacology andForensic Medicine Medica Owens, Lt.-Col. T. F., L.R.C.P. & Cormack, Lt.-Col. H. S., M.C., S. Edin., L.R.F.P.S. Glas., M.B., Ch.B., F.R.C.S.E., D.O., Prof. (on leave). I.M.S. Lectr. Sen, S. S., M.B., F.R.C.S.E. Lectr. I Demr. Hygiene and Public Health [Lectr. Aung, San Hla, M.B., Ch.B., D.P.H. Physiology Prof. Medicine Chowdhury, H., M.Sc., M.B. Morrison, Major R. V., M.D., F.R.C.P. Ed., I.M.S. Kahali, B. S., M.B. Asst. Lectr. Chowdhury, G. L., M.B. Calc. Asst. Mental Diseases [Lectr. Radiology Robson, Lt.-Col. H. A., L.R.C.P., Vermani, V. C., M.R.C.S. Eng., M.R.C.S., M.B., B.S., I.M.S. L.R.C.P. Lond. Lectr. Midwifery and Gynæcology Treston, Major M. L., F.R.C.S. Surgery Eng., M.R.C.S., L.R.C.P. Scott, Lt.-Col. H. B., O.B.E., Lond., I.M.S. F.R.C.S.E., I.M.S. May, Ma Yin, M.B., B.S., M.R.C.S.. Prof. (on leave). M.R.C.P., F.R.C.S.E. Sheppard, Lt.-Col. A. L., M.B., Ophthalmology B.S., F.R.C.S.E., I.M.S. Cormack, Lt.-Col. H. S., M.C., Prof. (offg.). M.B., Ch.B., F.R.C.S.E., D.O., David, M. D., M.B., C.M. Mad., I.M.S. Lectr. F.R.C.S.E. Asst.

### Training College for Teachers

Principal—G. F. Clark, M.A. Glas., Ph.D. Jena, I.E.S. Lecturer—Scott, Miss M. E., M.B.E., M.A. Edin., B.Ed. Edin., I.E.S. Art Master—Ba Zaw. U.

English

Asst. Lectrs.: Grant, Mrs. I., B.A., B.T. De Souza, Miss A., M.A.

Kamen, Miss N., M.A.

History and Geography
Ba, U, B.A., B.Ed. Lectr.
Mukerjee, M. L., B.A., B.T.

Asst. Lectr.

Mathematics

Minus, Mrs. I., B.A. (Hons.)
Asst. Lectr.

Emin, Mrs., B.A.

Asst. Lectr. (temporary).

Physical Training Instructor— Tin Hla, D.

5 other teachers.

### GENERAL INFORMATION

This Univ., founded in Dec. 1920, is governed by a widely representative Council (not more than 70 members), with an Executive Committee of 12 members. The Senate consists of the Vice-Chancellor, the Director of Public Instruction, Burma, the Principals of Constituent Colleges, the Professors, 3 members of the Council, and not less than 10 lecturers in constituent colleges. Its executive duties are discharged by a Standing Committee. The Act of 1920 was amended in 1924.

An estate of about 450 acres of high and healthy ground, adjoining the Victoria Lakes on the outskirts of Rangoon, has been acquired for the Univ. buildings. Buildings for the Univ. and its Constituent Colls. have been completed. The cost of the complete scheme was about Rs. 150 lakhs.

Special Features. The B.Sc. Courses in Forestry; courses in Burmese, in old Mon (Talaing); in Burmese Epigraphy leading to the M.A. (Hons.); course in Far Eastern History with emphasis on Chinese and further Indian studies; special courses in Burmese History. The University has access to a comprehensive collection of MSS. of Pali Pitakas with commentaries, and Talaing MSS. in the Bernard Free Library and is engaged in the collection of similar materials.

LIBRARIES. University, 6000 vols. This Library will be devoted primarily to Burmese and Far Eastern Studies. Special grant of Rs. 1,50,000 received from Endowment Fund Trustees for Library equipment, book-stack, and purchase of books. University College, 38,500 vols.; Judson College, 16,000 vols.; Medical College, 1853 vols.; Training College for Teachers, 6500 vols.

Degrees.—B.A. and M.A.; B.Sc. and M.Sc.; B.Sc.Civ.Engin.; B.Sc. Forestry; B.L.; M.B. and B.S. (6 yrs.' course from Intermediate examn.); D.Litt., D.Sc., LL.D., B.Ed.

DIPLOMA, in Forestry. Certificate, in Teachers' Training.

Admission. Ordinarily by Matriculation or a pass in the Anglo-Vernacular High School examn., or the English High School examn. held by Education Dept. in English, Burmese, Maths., and two optional subjects. Proficiency in English must be shown.

FEES for Examinations: B.A., B.Sc., Rs. 30; B.A. (Hons.), B.Sc. (Hons.), Rs. 40; M.A., M.Sc., Rs. 40; B.L., Rs. 40; M.B. and B.S., Rs. 50. Diploma or Licence, Rs. 40; B.Sc. Forestry, Rs. 40; B.Sc. Engineering, Rs. 40.

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SCHOLARSHIPS for advanced study in the United Kingdom: 1 in English Lang. and Lit.; 1 for London Teacher's Diploma; 1 in Librarianship; 1 in Engin.; 1 in Surgery; 1 in Dental Surg.; 1 in Medicine; 1 in Book-selling.

Publications. Calendar (Sept.); Annual Reports; Convocation Addresses.

### THE YEAR 1930-31

Benefactions. Books have been purchased for the Univ. Library out of the generous gift of Rs. 10,000 by Raja Dr. S. Ramanatha Reddiar.

NEW BUILDINGS. The following main buildings were completed and occupied during the year: Main University Buildings (Convocation Hall, Council Chamber, Committee Rooms, and Univ. Office); Teaching and Administrative blocks of University Coll., of Judson Coll., and of the Training Coll. for Teachers, including two Practising Schools and Residential Halls for men and women; Univ. Library; Students' Union and Gymnasium; residences for the staff; University post office, telephone exchange, and bookshop completed and occupied.

New Departments and Posts. Constitutions for additional Constituent Colls., i.e. Medical Coll. and Training Coll. for Teachers, were approved by the Council of the Univ. The Nattukottai Chettyar Lectureship in Banking and Commerce was filled from Sept. 1931.

OTHER DEVELOPMENTS. Anticipated heavy municipal taxation on completed scheme of Univ. Buildings has forced Univ. to examine the question of acquiring statutory powers to administer Univ. area as an extra-Rangoon-Municipal area. Univ. Endowment Fund Trustees, waiving their right to earmark expenditure, authorized the payment to the Univ. of an annual sum of Rs. 2 lakhs for expenditure on general Univ. purposes.

CHANGES IN THE REGULATIONS. Regns. governing Engineering Courses and Examns. completely revised and approved by Senate. Provision made for 3 examns. instead of 2 as hitherto. The new Regns. came into force June 1931. Transitory provisions made for students admitted to the course prior to 1931.

The B.Ed. course (2 yrs.) has been established. The Dipl. in Teaching Course will be held in abeyance for 2 yrs. Courses (2 yrs.) for the Univ. Trained Teachers' Certif. are conducted in this Univ.; Matriculates of the Univ. eligible for admission.

EXTRA-MURAL WORK, October 1930. A series of Vacation Courses for Teachers in connexion with Secondary School curricula and teaching. A series of 4 lectures at Toungoo on behalf of the Burma Education Extension Association.

STUDENTS. Full-time: total, 1550; graduates, 411. Part-time, 29. Vacation courses—Teachers, 273.

Degrees. M.A. (Hons.), 2; M.A. (Pass), 1; M.Sc. (Hons.), 1; B.A. (Hons.), 14; B.A. (Pass), 59; B.Sc. (Hons.), 13; B.Sc. (Pass), 39; B.L., 35; B.Sc. (Forestry), 4; B.Sc. (Engineering), 9; Diploma in Teaching, 30; M.B. and B.S., 11; L.M. and S., 1; Diploma in Forestry, 4.

# THE INDIAN INSTITUTE OF SCIENCE, BANGALORE

Address-Hebbal, Bangalore District. Telegrams-Science, Bangalore.

VISITOR—H.E. THE VICEROY OF INDIA. DIRECTOR—M. O. FORSTER, D.Sc., Ph.D., F.I.C., F.R.S.

### TEACHING STAFF

Chemistry, General [Prof. Watson, H. E., D.Sc. Lond., F.I.C. Kulkarni-Jatkar, S. K., M.Sc. Bom. Lectr. Krishnaswami, K. R., B.A. Mad., D.Sc. Lond. Rau, Govinda, M. A., Ph.D. Lond. Asst. Chemistry, Organic [Asst. Prof. Guha, P. C., D.Sc. Calc. Chakravarti, G.C., M.Sc. Calc. Lectr. Ayyar, P. Ramaswami, M.A. Mad. Rao, B. Sanjiva, B.A. Mad. Asst. Iyer, B. H., M.Sc. Bom. Jr. Asst. Bio-Chemistry Subrahmanyan, V., B.A. Mad., D.Sc. Lond. Prof. Banerjee, B., M.Sc. Calc. Asst. Patwardhan, V. N., M.Sc. Bom. Asst.

Mowdawalla, F. N., M.A., B.Sc.
Prof.
Rudra, J. J., M.A., B.Sc., Ph.D.
Lectr.
Assts.:
Narayanaswamy, N. V., M.A.
Mad.
Apte, G. V., B.E.
Junnarkar, N. R., B.E.

Mechanical Engineering

Electrical Technology

Rau, K. B. Krishna, B.A., B.E. Lectr. Electrical Communication Engineering [Asst. Prof. Kantebet, S. R., B.A. Bom.

Sathe, V. V., B.E.

French and German Row, K. Amrita, M.A. Mad., L.T. Lectr.

Asst.

### GENERAL INFORMATION

The object of the Institute, opened July 24, 1911, is to establish Chairs and Lectureships in Science and Arts, especially with a view to the promotion of original investigations and their utilization for the benefit of India, and to provide and to assist in the provision of suitable libraries, laboratories, and all other necessary appliances.

Associateships are awarded on the recommendation of the Senate for 5 terms (of which there are 3 in a yr.—July-Sept., Nov.—Dec., Jan.—March) devoted entirely to research work; also for 3 terms plus a period of research elsewhere before or after the period spent at the Institute. Fellowships may be awarded to Associates who, having spent 5 yrs. in actual practice, produce satisfactory evidence of original and valuable research work, or other contribution to the advancement of scientific or industrial knowledge. Certificates are granted to students who satisfactorily complete approved courses of study.

111 Associateships and 1 Fellowship have been granted.

654 INDIA

Students reside in a *Hostel*. Messing charges are from Rs. 28 to Rs. 35 p.m.; rent, lighting, and service, Rs. 10 p.m.

Publications. Calendar (annual); Pamphlet describing history, 1911-23; Journal of the Institute, about 12 parts annually; Electrotechnics, pubd. by the Elec. Engin. Soc. The Library contains 19,000 vols.

### THE YEAR 1930-31

RETIREMENTS. Prof. Catterson-Smith (Elect. Technol.) in August, and Mr. Kann (Engin.) in September 1930.

Number of Students. Full-time: total, 124, all graduates. Part-time: total, 9, all graduates. Genl. Chem., 23; Org. Chem., 32; Bio-Chem., 26; Elec. Tech., 52.

### CEYLON UNIVERSITY COLLEGE, COLOMBO

President—H.E. The Governor of Ceylon.
Principal—R. Marrs, M.A. Ox., C.I.E.
Registrar—F. H. V. Gulasekharam, M.A. Madras.

### PROFESSORS AND LECTURERS

Botany Ball, N. G., M.A., Sc.D. Dub. Prof. Sarbadhikari, P. C., M.A. Calc., D.I.C., Ph.D. and D.Sc. Lond. Lectr. [Prof. Chemistry Rae, W. N., M.A. Camb., F.I.C. Chandrasena, J. P. C., B.Sc., Ph.D. Lond., D.I.C., A.I.C. Lectr. Fonseka, E. L., M.Sc. Lond., A.I.C. Asst. Lectr. Classics Whitely, S., M.A. Ox. Prof. Rodrigo, J. L. C., M.A. Ox. Lectr. Asst. Lectr. . . . . . . Economics Das Gupta, B. B., M.A., Ph.D. Calc., B.Sc. Lond. Lectr. English Prof.

Smith, Leigh, M.A. Durh. Prof. Hussey, D. M., M.A. Camb. Lectr. Passé, H. A., B.A. Lond. Asst. Lectr.

French and German
Jansz, P. L., M.A. Camb. Lectr.
Geography [Lectr.
Robison, L. McD., B.A. Manc.

History, Modern [Prof. Pakeman, S. A., M.A. Camb.

Dé, J. C., M.A. Calc., M.A. Lond. Lectr.

Mathematics
Suntharalingam, C., M.A. Ox.,
B.Sc. Lond. Prof.
Caspersz, U. D. R., B.Sc. Lond.

Gulasekharam, F. H. V., M.A.
Madras Lectr.
Nadaraser, S., M.A. Camb., B.Sc.
Lond. Asst. Lectr.

Philosophy
The Principal.

Physics
Hinton, J. W., M.Sc. N.Z. Prof.
..... Lectr.

Sinhalese, Sanskrit, and Pali Malalasekera, G. P., M.A. Lond., Ph.D. Lond. Lectr. Siddhartha, Thero R., M.A. Calc. Lectr.

Kingsbury, F., B.A. Mad. Lectr.

Zoology

Burt, D. R. R., B.Sc. St. And., F.L.S. Lond. Lectr. Fernando, W., B.Sc., Ph.D. Lond. Asst. Lectr.

### GENERAL INFORMATION

As a preliminary step to the formation of a University for Ceylon, the College was established in 1921 by the Ceylon Government. A College Council nominated by the Governor of the Colony, advises the Government on all important questions connected with higher education.

LABORATORIES. Botany, Chemistry, Physics, Zoology.

TERMS. July-Sept.; Oct.-Dec.; Jan.-Mar.

Admission to the Ordinary courses is restricted to students who have passed the London Matriculation Examination or obtained exemption from it. Others may be admitted to special courses on payment of admission fee, Rs. ro minimum.

Degree Courses are provided for the B.A., B.Sc., and B.Sc. (Econ.) of the University of London. By special arrangement the University holds its Honours examinations in Ceylon in Engl., Classics, Oriental Langs., Hist., Philos., Maths., Chem., Botany, and Zool. A Pre-Registration course in Physics, Chem., and Biol. is provided for students of the Ceylon Medical College.

ORIENTAL LANGUAGES. Courses are provided in Sanskrit, Pali, Sinhalese, and Tamil.

FEES FOR TUITION. Full course—Rs. 150 per annum plus Rs. 30 per annum extra for each science subject offered. Single subject: Arts—Rs. 15 per term; Science—Rs. 25 per term.

RESIDENCE. Protestants, Roman Catholics, and non-Christians have hostels under College supervision. Cost of board and lodging, approximately, Rs. 40 p.m.

Scholarships for Graduates. The Ceylon Govt. offers 7 of £300 per annum, each tenable for 2 or 3 years in a British Univ.—one for Arts, one for Oriental Langs., one for Science, one for Maths., one for Agric. and Forestry, and two for Engineering. Candidates must have been resident in the Island five years.

Publications. Prospectus (July).

### THE YEAR 1930-31

STUDENTS. Full-time: Arts and Pure Science, 385. Part-time students, 8. Degrees obtained (Univ. of London) in 1930. B.A., 14; B.Sc., 10.

# CEYLON MEDICAL COLLEGE, COLOMBO

PRESIDENT-H.E. THE GOVERNOR OF CEYLON.

PRINCIPAL—Dr. R. BRIERCLIFFE, O.B.E., M.B., Ch.B. Manc., Director of Medical and Sanitary Services of Ceylon.

REGISTRAR—Prof. F. O'B. Ellison, M.D., B.Ch., B.A.O., B.A. Dublin.

### PROFESSORS, LECTURERS, ETC.

Anæsthetics, and Materia Med. and Therapeutics

de Silva, J., M.B., C.M. Aberd., D.P.H. Camb. Lectr.

I Asst.

Anatomy

Hill, W. C. Osman, M.B., Ch.B., M.D. Birm. Prof.

2 Demrs., I Asst.

Bacteriol. and Trop. Med. Nicholls, L., M.D., B.Ch., B.A.

Nicholls, L., M.D., B.Ch., B.A. Camb. Lectr.

Diseases of Children

Anderson, Miss C. E., M.B., Ch.B. Aberd. Lectr.

Electricity, Medical and X-ray Goonewardene, H. O., M.B., B.S. Lond., M.R.C.S. Eng., L.R.C.P. Lond. Lectr.

Forensic Medicine and Mental Diseases

Parsons, L. D., M.B., Ch.B. Edin. Lectr. Gynæcology [Lectr.

de Zilwa, L., M.D., B.Sc. Lond.

Hygiene

Gunasekera, S. T., M.R.C.S. Eng., L.R.C.P. Lond., D.P.H. Lond. Lectr.

Infectious Diseases

Jacob, K. K., L.R.C.P. and S., L.F.P. and S. Glas. Lectr. Materia Medica and Therapeutics, v. Anæsthetics Medicine [Lectr. Mack, E. Garvin, M.D., B S. Lond.

Spaar, E. C., B.A. Lond., M.D., B.S., M.R.C.P.

Medicine, Clinical

Lectrs.:

de Zilwa, L. (v. Gynæc.). Mack, E. G. (v. Med.).

Spaar, E. C., M.D., B.S., M.R.C.P., B.A. Lond.

Cooke, G., M.D., B.S. Lond., M.R.C.S., L.R.C.P.

Blazé, J. R., M.B., B.S. Lond. Fernando, C., M.D., M.R.C.P. Lond.

Midwifery

Navarahvam, S. L., L.M.S. Lectr.

Ophthalmology

Arndt, E. W., M.R.C.S. Eng., L.R.C.P. Lond., D.O.M.S.

Lectr.

Pathology
Karunaratne, W. A. E., M.D.,
B.S. Lond.

I Demr.

Pharmacy [Lectr. Pinto, C. F. X., M.P.S. Lond.

Physiology

Ellison, F. O'B., M.D., B.Ch., B.A.O., B.A. Dub. Prof. 2 Assts., 1 Lab. Asst.

Skin Diseases Spittel, R. L., L.R.C.P. Lond., F.R.C.S. Eng., L.M.S. Lectr. Surgery Gabriel, V., F.R.C.S. Eng. M.R.C.P. Lectr. Alles, E. C., F.R.C.S. Eng. Lectr. Surgery, Clinical Lectrs.: de Silva, A. M., F.R.C.S. Eng. Spittel, R. L., F.R.C.S. Eng. (v. Skin Dis.). Alles, E. C. (v. Surg.).

Gabriel, V., F.R.C.S. Eng., M.R.C.P. Lond. Jayasuriya, J. H. F., F.R.C.S. Eng.

Sinnetamby, G. S., F.R.C.S. Eng., L.M.S.

Surgery, Operative Sinnetamby, G. S. (v. Surg., Clin.). Tropical Medicine

Castellani, Sir A., K.C.M.G., M.D. Flor., F.R.C.P. Lond.

Emer. Prof. Nicholls, L. (v. Bact.) Lectr.

The College, founded in 1870, is controlled by a Council composed of members nominated from the teaching staff of the College, together with the Government Assessor and one member nominated from the Med. Profession generally. The College is recognized by the Gen. Med. Council.

The Medical Depart. provides a 5 years' course for the L.M.S. (Ceylon): the Apothecary Depart. a 2 years' course for the post of Government Apothecary or Estate Dispenser. Admission to the L.M.S. course is open only to students registered by the G.M.C., who are at least 17 years of age and have passed the London matric. examn. or an exempting examn. and a special examn. in Chemistry, Physics, and Biology.

Tuition Fee, per annum, Rs. 500. Terms: Oct. 1-Dec. 23, Jan. 4-March

31, May 1-July 31.

Publication. Calendar (October).

### THE YEAR 1930-31

New Department and Posts. Dept. for Instruction of Pupil Midwives set up. Additional whole-time demonstrator in Anat., additional whole-time demonstrator in Physiol.

DEATH. Dr. Lionel de Silva (Med.).

STUDENTS. L.M.S., 162; Apothecary, 52.

DIPLOMAS GRANTED. L.M.S., 8; Apothecaries, 34.

# KING EDWARD VII. COLLEGE OF MEDICINE, SINGAPORE

- Patron—Sir Cecil Clementi, K.C.M.G., Governor, Straits Settlements, and High Commissioner, Federated Malay States.
- President of Council—The Hon. C. J. Wilson, M.C., M.A., M.D., M.R.C.S., L.R.C.P.
- PRINCIPAL—G. V. ALLEN, M.D., M.B., B.Ch., B.A.O., D.T.M. and H. Lond.

TEACHING STAFF	
Anæsthetics	Medicine
Murrell, E. B., B.Ch. Camb.,	Hawes, R. B., M.B., B.S. Lond.,
M.R.C.S. Eng., L.R.C.P.	M.R.C.P. Lond. Prof.
Lond. Lectr.	Norris, V. H., L.M.S. Lectr.
An atomy	Medicine, Clinical
Harrower, J. G., M.B., Ch.B.	The Principal (Lectr. in Thera-
Glas., D.Sc. Edin. Prof.	peutics) Prof.
Oehlers, R. C., L.M.S. Asst.	Haridas, G., L.M.S. Tutor.
Bacteriology	Midwifery and Gynæcology
Young, W. A., B.Sc., M.B.,	English, J. S., B.A., M.D., B.Ch.,
B.S. Lond., D.T.M. and	B.A.O. Dub., L.M. Rotunda
H., Lond., M.R.C.S. Eng.,	Prof.
L.R.C.P. Lond. Prof.	Da Cotta, A. M., M.R.C.S. Eng.,
Sen, N. K., M.B. Calc. Asst.	L.R.C.P. Lond., L.M.S., L.M.
Bio-Chemistry	Tutor.
Rosedale, J. L., Ph.D. Bonn,	Pathology and Forensic Medicine
D.Sc. Aberd., F.I.C. Prof.	Tull, J. C., M.D. McGill, M.R.C.P.
Oliveiro, C. J., L.M.S. Asst.	Lond., L.R.C.P. & S. Edin.
Chong, L. P. Asst.	and Glas. Lectr.
	Balasingham, T., L.M.S. Asst.
Biology	Pharmacy
Gater, B. A. R., M.A. Camb.,	Roebuck, T., Ph.C., M.P.S. Lectr.
Dip. Agric. Camb., D.I.C. Prof.	Physics
Sandosham, A. A., L.M.S. Asst.	Madgwick, E., M.Sc. Durh., Ph.D.
	Camb. Prof.
Chemistry	Physiology and Pharmacology
McOwan, G., M.A., B.Sc., Ph.D.	Kay-Mouat, J. R., M.A. Ox., M.B.,
St. And., F.I.C. Prof.	B.Ch., D.P.H., M.Sc. Brist. Prof.
Eye Diseases, v. Surg.	Ghosh, K. C., L.M.S. Asst.
Infectious Diseases	Public Health
Gilmour, C. C. B., M.B., B.Ch.	Sayers, F. R., B.A., M.D., D.P.H.,
Glas. Lectr.	B.Ch., B.A.O. Dub. Lectr.
Mental Diseases [Lectr.	Spink, R. G., M.B., Ch.B. Aber.,
Stone, E. R., M.B., B.Ch. Camb.	D.P.H. Lond. Demr.

Radiology

Webster, J. S., M.B., B.S., D.P.H. Vict., D.M.R.E. Camb. Lectr.

Surgery

Smith, C. J., O.B.E., F.R.C.S. Edin. (Senr. Surgeon, Singapore) Prof.

Black, K., F.R.C.S. Eng., L.R C.P. Lond., L.D.S. (Lectr. in Ophthalmol.) Prof.

Balhetchet, W. A., L.M.S. Tutor. Apparajoo, R., L.M.S. Tutor. Surgery, Clinical

Johns, B. M., M.B., Ch.B. N.Z., F.R.C.S. Edin., D.T.M. & H. Lond. Prof.

Vellasamy, K., L.M.S. Tutor.

Surgery, Dental [Prof. Tratman, E. K., B.D.S. Brist.

Venereal Diseases

Kelly, R. W. C., M.R.C.S. Eng., L.R.C.P. Lond. Lectr.

### GENERAL INFORMATION

The Coll. is a Government institution, partly endowed by public subscription, managed by a Council of Govt. officials and private members, with the Principal Civil Medical Officer as President, advised by a Senate composed of the professors and lecturers with the Principal as Chairman. Since its foundation 242 licentiates have passed out. It owes its name to a large donation from a King Edward VII. Memorial Fund, which enabled the Council in 1913 to endow a Chair of Physiology.

The Diploma in Medicine, Surgery, and Midwifery was recognized by the

General Medical Council in 1916.

Admission qualifications: (1) The Cambridge School certificate, with English (special Malayan paper), another language, and Maths. as compulsory subjects, and two of the following—Hist., Geog., Chem., Physics, Bot., Expl. Sc., Applied Maths.; or (2) certificates of equivalent standard, e.g. London Matrican, recognized by the General Medical Council as qualifying for registration as Med. students. Candidates must be of good physique.

Terms. Trinity—June 1 to Aug. 31; Michaelmas—Oct. 1 to Dec. 20; Lent—Jan. 3 to March 31.

Dental School. The School was started in 1928. The course covers 5 yrs. Conditions of admission the same as for medical course. The Diploma in Dental Surgery is registrable in Malaya.

Tuition Fees. \$300 p.a.

RESIDENCE, ETC. Hostels for 122 students. There is a Students' Union. Publications. Calendar (June); Annual Report.

### THE YEAR 1930-31

Benefactions. Contribution by Colonial Development Fund of £3600 towards Vitamins Research.

New Post. Second Assist. in Bio-Chem.

VISITS OF MEMBERS OF STAFF TO OTHER UNIVS. Principal, Prof. of Biol. and Prof. of Bio-Chem. attended VIII. Congress of the Far Eastern Assn. of Tropical Med. at Bangkok.

RETIREMENT. Dr. A. L. Hoops, President of Council retired on Feb. 20, 1931.

DEATH. Dr. G. H. Macalister, Principal, died Oct. 2, 1930.

Honorary Degrees. L.M.S. (Singapore)—Dr. A. L. Hoops.

STUDENTS. Full-time: total, 144.

### RAFFLES COLLEGE, SINGAPORE

PATRON—H.E. THE GOVERNOR OF THE STRAITS SETTLEMENTS. PRESIDENT—J. WATSON, M.A., B.Sc. Edin. (acting).

### PROFESSORS, LECTURERS, Etc.

\*Biology [Reader. Geography Gater, B. A. R., M.A., Dipl. Agric. Amon, H., M.C., B.A. Lond. History Camb., D.I.C. Actg. Prof. Dyer, W. E., M.A. Ox. Prof. Chemistry Mathematics McOwan, G., M.A., B.Sc., Ph.D. Prof. St. And., F.I.C. Cooke, J. C., B.A. Ox. Lectr. Owen, C. T. J., B.Sc. Bristol Lectr. Physics Education Madgwick, E., M.C., M.Sc. Durh., Amon, H., M.C., B.A. Lond. Prof. Ph.D. Camb. Prof. Webb, C. G., B.Sc. Lond. English Lang. and Lit. Demr. Gillett, E. W., M.A. Ox. \*Physiology [Prof. Johore Prof. Kay-Mouat, J. R., M.A. Ox., M.B., Hough, G. G., B.A. Liv. Lectr. B.Ch., D.P.H., M.Sc. Brist.

\* By arrangement with King Edward VII. College of Medicine.

### GENERAL INFORMATION

This is a non-Government institution, endowed partly by the Straits Settlements and some of the Malay States and partly by public subscription, managed by a Council of Government officials and private members and advised by a Senate composed of the Professors and of the Principal of King Edward VII. College of Medicine, Singapore, with the President as Chairman. It opened in June 1928, and now has 123 students.

Admission. Students will be admitted to the College only after they have reached the age of seventeen, although exceptions may be made for students who have reached the age of sixteen and can furnish a special recommendation from their schools.

Before admission all students must be examined as to physical fitness, and will be accepted only if their standard of health is good. To qualify for admission students must submit a certificate of character from their last school, and must have passed one of the following examinations: (a) The Malayan Cambridge Certificate Examination, or the ordinary Cambridge Certificate Examination with a pass with credit in English; (b) The Final Examination for a degree in Arts or Science in any University of the United Kingdom or British Dominions; (c) The Matriculation Examination of any University in the United Kingdom or British Dominions; (d) Any other examination specially approved by the Senate of Raffles College.

Persons not members of the College may be admitted, with the approval of the President, to attend a course of lectures on any subject, on payment of a fee of \$20 a term. Diplomas are given to students who pass a three yrs.' course. The standard of instruction given in the three yrs.' course aims at that of London Univ. B.A. (Hons.) and B.Sc. (Hons.) in principal subjects, and a pass degree standard in subsidiary subjects. Students are also admitted to study for external degrees of London Univ.

Terms. Trinity—June r-August 8; Michaelmas—October 3-December 11; Hilary—January 3-March 13.

FEES for tuition, \$300 (\$1 = 2s. 4d.); board and lodging, \$360 p.a.

RESIDENCE. Halls of residence for 120 students have been opened.

Scholarships. One post-graduate scholarship annually, £500 p.a. for 2 yrs., to enable a student of Chinese race or descent to visit and continue his studies at any Univ. or Univs. in Gt. Britain or Ireland approved by the President. The John Anderson Scholarship, awarded from time to time to British subjects of any race or creed of either sex born in the Straits Settlements or Federated or Unfederated Malay States, to enable the scholar to study at Raffles College. The scholarship is awarded for 3 yrs. Two other scholarships, the Singapore Bar Committee Scholarship and the Kelantan Scholarship, will be awarded when the accumulated funds permit. There are further certain Government Student scholarships, value \$20 and \$50 p.m. plus fees.

Publication. Calendar (February).

### THE YEAR 1930-31

Benefactions. In addition to the amounts subscribed annually by various Govts., there was received a sum of \$3041 (£355) from the public for the Clifford Fund.

New Buildings. Three houses for the accommodation of Lecturers completed.

New Post. Arrangements for the appointment of a Lectr. in Geog.

DEATH. Prof. R. K. Butchart (Maths.), at sea, March 30, 1931.

STUDENTS. 123 full-time.

### UNIVERSITY OF HONG-KONG

PATRON-H.M. THE KING.

CHANCELLOR-H.E. THE GOVERNOR OF HONG-KONG.

VICE-CHANCELLOR AND PRINCIPAL—Sir WILLIAM WOODWARD HORNELL, C.I.E., M.A. Ox.

CHAIRMAN OF CONSULTING COMMITTEE IN LONDON—Sir CHARLES ADDIS, K.C.M.G., LL.D.

REGISTRAR—W. B. FINNIGAN.

LIBRARIAN-Mrs. M. E. M. RING, M.Sc. Birm.

### PROFESSORS, LECTURERS, ETC.

Accounting & Business Practice
Martin, T. A. Pt.-time Lectr.
Anatomy

Shellshear, J. L., D.S.O., M.D., Ch.M. Syd. Prof. Wong, R. J., M.B., Ch.M. Syd.

Tutor.

1 Demr.

An atomy, Morbid

..... Teacher.

Biology

Herklots, G. A. C., Ph.D. Camb., B.Sc. Leeds, F.L.S. Reader.

Chemistry [Prof. Byrne, G. T., M.Sc. Manc., F.I.C. Hill, R. A., M.Sc. Manc., A.I.C.

Chan, C. L. Lectr. Demr.

Chinese

Au Tai Tin (Hanlin) Reader.
Lai Hsi Chi (Hanlin) Reader.
Wan Shuk (Hanlin) Lectr.
Lam Tung, B.A. Translator.

Commerce

Cooper, M. A., B.Com. Lond.

Lectr.

Economics and Political Science
Robertson, R., M.A. Edin. Prof.

Education

Forster, L., M.A. Lond. Prof.

Engineering, Civil and Mech. Smith, C. A. Middleton, M.Sc. Birm., M.I.M.E. Taikoo Prof. Fenwick, A. H., B.Sc. Lond.

Lectr. Morley, D. W., M.A. Camb. (Mech.

E.) Lectr.
Redmond, F. A., B.Sc. Lond.,
D.I.C., F.G.S. (Civ. E.) Prof.
Lee, S. C., B.Sc. (Mech. E.) Demr.
Pao, Y. L., B.Sc. Demr.
Weller, F. C. Workshop Instr.

Engineering, Electrical

Roffey, M. H., D.S.O., M.Sc. McG., M.I.E.E. Dean and Prof. Day, I., M.I.E.E. Demr.

English

Simpson, R. K. M., M.C., M.A. Edin. Prof.

Lecturers and Tutors: Birch, B. G., B.A. Bristol. Hartnell, A. C. Braine, B.A. Ox. Clarabut, C. A. R., B.A. Camb.

History

..... Reader.

Logic and Ethics Reeve, G. W., B.A. Pt.-time Lectr.

Mathematics, Pure and Applied Brown, W., M.A., B.Sc. Glas.

Prof.

664 CHINA

Medicine and Surgery, v. infra **Physics** Faid, W., M.Sc. Durham, Dean, Fac. of Arts Prof. Lectr. Davies, D. F., B.A. Ox. Demr. Un Po, B.Sc. Physiology Ride, L. T., M.A. Ox., M.B., B.Ch., M.R.C.S., L.R.C.P., Dean, Fac. of Med. Prof. Wong, S. Y., M.Sc., Ph.D. Col-Asst. umbia

#### Medicine

(for subjects of first 2 yrs.—Anat., etc., v. supra) Hygiene and Pub. Health

Minett, E. P., M.D. (also in Med. Jurispr.) Lectr. Minett, Mrs. E. M., M.B., B.S., M.D., D.P.H. Pt.-time Lectr.

Medical Jurispr.

Minett, E. P., M.D., M.R.C.S.,
L.R.C.P., D.P.H., D.T.M. &
H. Lectr.

Medicine
Gerrard, W. I., O.B.E., M.D.,
Ch.B., M.R.C.P. Lond.,
D.P.H. Prof.

Li, T. Y., M.D., B.S., D.T.M. & H. Asst.

Obstetrics & Gynæcology
Tottenham, R. E., B.A. Dub.,
M.D., Ch.B., B.A.O.,
F.R.C.P.I., L.M., D.P.H.
Prof.

Pillai, D. K., M.D., B.S., L.M. Rotunda Asst.

Ophthalmology
Morrison, J., M.B., Ch.B. Edin.
Lectr.

Pathology
Davis, L. J., M.D., Ch.B. Edin.
Prof.

Pharmacology Wong, S. Y., M.Sc., Ph.D. Lectr Surgery

Digby, K. H., M.B., B.S. Lond., F.R.C.S. Eng. Prof. Hsiu, S. T., M.B., B.S. Asst.

Surgery, Clinical
Digby, Prof. K. H. Ho Tung Prof.
Therapeutics [Lectr.
Ware T W M B Ch.B. Brist.

Ware, T. W., M.B., Ch.B. Brist.

Tropical Medicine

Thomas, G. H., M.D., B.S. Lectr.

Vaccination [Teacher.
Thomas, G. H., M.D., B.S.

### GENERAL INFORMATION

The Univ. was incorporated in 1911 and formally opened in 1912. For early history, see Yearbook for 1929. The buildings, including class-room accommodation for 500 students, three hostels, laboratories, etc., together with playing-fields, occupy an area of 25 acres. In 1919 were opened the Schools of Physiology, Tropical Medicine, and Pathology presented by three Chinese gentlemen. "The root idea of the Univ. is to provide a place for Higher Education where Chinese youths can remain under the influence of their own parents and guardians . . . subject to the strong control which Chinese opinion exerts upon young men, instead of being adrift in a foreign country where a liberty unknown to students in the East is allowed to undergraduates" (Calendar, 1919–20).

The Court is composed of life, ex-officio, and nominated members; the Council is composed of the Chancellor, the Vice-Chancellor, the Treasurer, certain Government officials, the Chinese members of the Legislative Council, Deans of Faculty, and two representatives of the commercial community, with power for the Governor to appoint two additional members. The Senate consists of the Vice-Chancellor, the Director of Education, the Professors and Readers.

Museum of Pathology and Trop. Med. LABORATORIES: Anat., Bact.,

Biol., Chem., Histol., Path., Physics, Physiol., Trop. Med.; Applied Mechanics, Materials, Elec. Tech., Power House, Hydraulics, Steam, Elec. Machinery, Elec. Traction, Engin. and Carpentering workshops. Hospis. in the vicinity available for clinics, 400 beds; Govt. Bacteriological Inst. and Mortuary.

FACULTIES. Med., Engin., Arts. There is also a School of Chinese Studies. Terms. Jan. 3-May 18; Sept. 11-Dec. 7.

MATRICULATION examn. (framed for use also as a School Leaving examn.) includes (a) English, (b) Maths., (c) Chinese Lang. and Lit., (d) Latin or a Classical Oriental Lang. other than Chinese, (e) Geog., (f) a Modern Lang. other than English or Chinese, (g) Mandarin, (h) Hist., (i) Physics, (j) Chem., (k) Higher Maths., (l) Trigonometry, (m) Mechanics, (n) Drawing, (o) Botany. (a) and (b) are compulsory for all, and (c) for all Chinese candidates. It is necessary to pass in 5 subjects, and for the Med. Faculty these must include (c), (d) or (f), and (e) or (h). Medical students are registered after passing an examn. in physics, chem., and biol. subsequent to general matricn.

Degrees. B.A., B.Sc. (Eng.), M.A., M.Sc. (Eng.), M.B., B.S., M.D., M.S. The standard aimed at is that of the Univ. of London. To qualify for admission to the Bachelor's degree examns. residence for 8 (in Med.—10) terms is necessary; the 5 years' medical course dates from registration as medical student (see preceding paragraph); 3 yrs. are devoted to clinical work subsequent to passing an examn. in anatomy and physiology.

The examn for the Master's degree may be taken at the end of 2 yrs. after graduation as Bachelor. For the M.A. or M.Sc. a thesis is required; for the M.S., evidence of special post-graduate experience. The examn for the M.D. may be taken 5 yrs. after graduation, or at the end of 2 yrs. if evidence is produced of special post-graduate experience.

Graduates of other Univs. who wish to become candidates for a Master's degree must work under the direction of the Fac. concerned for at least 1 yr.

The Degree of B.A. may be obtained in any one of 3 Depts. under 6 "groups" of studies. (a) Pure Arts and Science: Group 1, Letters; 2, Experimental Science; 3, Social Science. (b) Training of Teachers: Group 4 (a), Science and Maths.; 4 (b), General. (c) Commerce: Group 5, Commercial Training.

FEES for tuition, \$400 p.a.; board and lodging, \$300; Univ. Union, \$20; books and charges for materials, etc., in Labs., about \$100. It is claimed that there is no European Univ. where a foreign student can live so cheaply.

RESIDENCE. All students must reside in the quarters provided, or in hostels founded by religious bodies and conducted under regns. approved by the Council.

### THE YEAR 1930-31

 $\it Matric.\ Examn.: 28$  schools presented candidates for this Examn., some from places as distant as Batavia, Singapore, Penang, Shanghai, and Borneo.

Benefactions. The Govt. grant was increased from \$50,000 to \$350,000 for 1 yr. £265,000 received from the Boxer Indemnity Fund.

New Post. Lecturer in Commerce.

Honorary Degrees. LL.D.—Hon. Foo Ping-sheung, B.Sc.

STUDENTS. Full-time: total, 336, including 40 women. Part-time: total, 13.

. Degrees. B.A., 13; B.Sc., 9; M.B., B.S., 19; M.D., 1.

## MANDATED TERRITORY—PALESTINE

## THE HEBREW UNIVERSITY OF JERUSALEM

President—Chaim Weizmann, Sc.D. Freib., D.Sc. Manc. Chancellor—Judah L. Magnes, Ph.D. Heid. Treasurer—Norman Bentwich, M.A. Camb. Registrar—S. Ginzberg, L. ès L., Dipl. Phil. Sorbonne. Librarian—Hugo Bergmann, Ph.D. Prague.

PROFESSORS, LECTURERS,	ETC.
Archæology and Art Sukenik, E. L., Ph.D. Dropsie	Kuk, S. Jr. Asst. Frankenthal, L. Jr. Asst.
Coll., Phila. (Jewish Archæol.)	Radovinsky, L. Jr. Asst.
Archæologist.	Edlitz, V., Ph.D. Jr. Asst.
Mayer, L. A., Ph.D. Vienna (Moslem Art and Archæol.) Lectr.	Geology Picard, L., Ph.D. Freib., D.Sc.
Bible	Lond. Asst.
Segal, M., Rabbi, M.A. Ox. (Jewish Bible Exegesis) Lectr.	History (and Topography) Baer, F., Ph.D. Freib. (Med.
Botany	Jewish Hist.) Prof.
Warburg, O., Ph.D. Strass. Prof.	Klein, S., Ph.D. Heid. (Palestine
Eig, A., D.Sc. Montpelier (Sys-	Research) Prof.
tematics and Ecol.)	Goitein, S. D., Ph.D. Frankf.
Custodian of the Herbarium. Hareubeni, E., Ph.D. Lausanne	(Arabic and Moslem Hist.) Instr.
(Biblical Botany) Asst.	Tcherikover, A., Ph.D. Berl. (Gk.,
Oppenheimer, H., Ph.D. Vienna	Roman and Hellenistic Hist.)
(Plant Physiol. and Anat.)	Instr.
Asst.	Hygiene and Bacteriology
Zohari, B. (Exp. Ecol.) Jr. Asst.	Kligler, I. J., Ph.D. Columbia
Feinbrun, N., Lic.Sc. (Genetics)	Prof.
Jr. Asst.	Geiger, A., M.D. Naples (Appld. Physiol.) Asst.
Chemistry Fodor, A., Ph.D. Zür. (Biol. and	Olitzky, L., M.D. Berlin (Bacteriol.
Coll. Chem.) Prof.	Serol.) Asst.
Frankel, M., Ph.D. Vienna (Syn-	Mer, G., M.D. Naples (Malaria)
thetic and Coll. Chem.) Asst.	Asst.
Bobtelsky, M., Ph.D. Berne	Ashbel, D., Ph.D. Berlin (Climatol.)
(Analyt. Chem.) Lectr.	Jr. Asst.
Weizmann, M., D.Sc. Grenoble	Ashner, M., Ph.D. Breslau (General Bact.) Jr. Asst.
(Appld. Chem.) Asst. Reifenberg, A., Ph.D. Giessen	Komaroff, R., B.Sc. Pittsb.
(Appld. Coll. Chem.) Asst.	Jr. Asst.
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Rosenberg, A., Ph.D. Zagreb
Jr. Asst.

Literature

Klausner, J., Ph.D. Heid. (Mod.
Hebrew Lit.)

Yellin, D. (Hebrew Poetry,
Spanish Period)

Pflaum, H., Ph.D. Heid. (Mediæval
Lit.)

Instr.

Mathematics

Fraenkel, A., Ph.D. Marb. (Pure Math.) (on leave) Prof. Fekete, M., Ph.D. Budapest (Pure Math.) Assoc. Prof. Amira, B., D.Sc. Math. Geneva (Pure Math.) Asst.

Philology

Billig, L., M.A. Camb. and Lond.
(Arabic Lit.) Lectr.
Rivlin, J., Ph.D. Frankf. (Arabic Lang.) Teacher.
Schwabe, M., Ph.D. Berl. (Classical and Hellenistic Philol.)
Lectr.

Philosophy

Roth, L., M.A., D.Phil. Ox. (Mod. Philos.) Assoc. Prof. Bergmann, H., Ph.D. Prague (Arabic Philos.) Lectr. Baneth, D., Ph.D. Asst.

Physics

Sambursky, S., Ph.D. Koen. (Physics) Asst.

Sociology

Ruppin, A., Ph.D. Halle (Sociol. of the Jews) Lectr.

Talmud

Epstein, J. N., Ph.D. Berne (Talmudic Philol.) Prof. Assaf, S., Rabbi (Gaonic and Rabbinic Lit.) Lectr. Gulak, A., Dipl. Jr. (Jewish Jurispr.) Lectr.

Zoology

Bodenheimer, F., Ph.D. Bonn (General Zool. and Entom.)

Assoc. Prof.

Aharoni, J. (Syst. Zool.) Lectr. Reich, K., Ph.D. Vienna Jr. Asst. Ashbel, R., D.Sc. Rome (Exp. Biol.) Jr. Asst.

Preparatory Division in Languages

Schwabe, M., Ph.D. (Greek) Lectr. Pflaum, H., Ph.D. (Latin) Instr. Pflaum, H., Ph.D. (German) Instr. Goitein, S. D., Ph.D. (Arabic) Instr. Rivlin, J., Ph.D. (Arabic) Instr. Billig, L., M.A. (Syriac) Lectr. Goitein, S. D., Ph.D. (Persian)

Instr.

### GENERAL INFORMATION

The University was opened on April 1, 1925, by Lord Balfour, as a group of research institutes. It is provisionally registered under the Law of Societies of Palestine. Systematic Undergraduate Instruction was begun in the Humanities in 1926 and in Mathematics in 1927. Systematic Undergraduate Instruction in Biological Sciences was begun in October 1931.

Land and Buildings. The University site is located on Mount Scopus. The land held by or for the Univ. now exceeds 200 dunams (50 acres). The Univ. Buildings comprise a building for the Depts. for Biological and Colloidal Chem., Genl. Chem., Parasitol., and Hygiene and Bacteriol., the Wattenberg Building for the Institute of Mathematics, and the Physics Building, which is, for the present, being used for the Depts. of Botany, Zool., Geol.; the Library (Wolffsohn House), which also houses the Institute of Oriental Studies; three service buildings (offices, power house, workshop); an animal house for medical experimentation; and the Open-Air "Minnie Untermyer Memorial Theatre." Plans are being prepared for the erection of the Rosenbloom Memorial Building for Jewish Studies and the Humanities.

LIBRARY (NATIONAL AND UNIVERSITY), 250,000 vols. Includes the Goldzieher Collection of books and periodicals on Arabic and Oriental Lit., the mathematical library of the late Felix Klein of Göttingen, and the Jarcho Medical Library. Among its manuscripts are the original of Einstein's Theory of Relativity and the Schwadron Collection of autographs and likenesses of Jewish men and women of distinction. The Schocken Collection of Hebrew Incunabula now contains 64 out of the 103 existing Hebrew Incunabula. The recently built Wolffsohn Memorial Building has complete modern library equipment with stackroom capacity for half a million vols. The Library issues a bibliographical quarterly, Kiryat Sefer (Editor, I. Joel, Ph.D.).

FACULTIES, ETC. I. Faculty of Humanities: Chairman, S. Klein. II. School of Biology. III. Research Institutes and Departments: Institute of Jewish Studies, Chairman of the Council—Chief Rabbi Dr. Hertz, of London. School of Oriental Studies: Arabic Section (Visiting Director—Prof. G. Weil, Ph.D. Berlin, of Frankfurt). Institute of General Humanities (Philos, Hist., and Letters). Maths., Palestine Natural Hist. (Bot., Zool., Geol.). Biological and Colloidal Chem., Genl. Chem., Parasitol., Hygiene, and Bacteriol.

DEGREES (Faculty of Humanities). M.A. (4 yrs.), Ph.D. (2 post-graduate yrs.) (none as yet conferred).

Scholarships: about 25; Research Fellowships: Achad Haam, £300 in Philosophy; Lord Plumer, £100, in Arabic Studies; Warburg, £120, in Public Health.

PUBLICATIONS. Yearbook (Hebrew and English), pubd. Sept. The Hebrew Univ. Press publishes Tarbitz, a Quarterly Review of the Humanities; The Kiryat Sefer, a Bibliographical Quarterly, and has published some books and pamphlets.

### THE YEAR 1930-31

Benefactions. J. Geliebter, about £2000 (Legacy).

New Buildings. The plans and drawings of the Central Building (Rosenbloom Memorial) were completed.

NEW DEPARTMENTS. Section of Plant Physiology and Anatomy.

OTHER DEVELOPMENTS. Botanical Garden in preparation. The Univ. Press published: The Third Wall of Jerusalem, by E. L. Sukenik and L. Mayer; The Plants of Palestine, by A. Eig, M. Zohari, and N. Feinbrun; Hebrew Translations of Philosophical Texts.

EXTRA-MURAL WORK. Course in the History of Music.

VISITS OF FOREIGN UNIV. TEACHERS AND VISIT OF STAFF MEMBER TO OTHER UNIVS. Prof. E. A. Speiser, of Univ. of Pennsylvania; Prof. U. Gerhardt, of Halle; Prof. Louis Massignon, of Paris; Prof. Kirsopp Lake, of Harvard; Prof. H. Blumberg, Ohio; Prof. A. Sereni, Naples; Sir Richard Gregory, London. Dr. F. Bodenheimer, to Univ. of Minnesota.

DEATHS. Prof. J. Horovitz, School of Oriental Studies; Lord Melchett, Board of Governors.

STUDENTS, 209.

## **APPENDICES**

## REGULAR COMMISSIONS IN H.M. FORCES FOR UNIVERSITY CANDIDATES

Regulations issued with Army Orders for January 1930 provide for Commissions being granted in the Cavalry, R.A., R.E., Royal Corps of Signals, Infantry Royal Tank Corps, Royal Army Service Corps (not exceeding II annually), Royal Corps of Signals (not exceeding 4 annually), and in the Indian Army. Nominations of graduates who have certain prescribed qualifications are accepted by the Army Council from the following Universities: I. Oxford, Cambridge, London, Edinburgh, Manchester, McGill, Sydney, Toronto; II. The other universities of Great Britain, Northern Ireland, and the Univ. of Dublin. Univs. in Group I. have established courses of military study, and their candidates will be commissioned as senior to candidates whose qualifications are in other respects equal. The grant of graduate commissions in the Indian Army is limited to candidates from univs. in Great Britain, Northern Ireland, and the Univ. of Dublin. Commissions of accepted candidates will be antedated approximately 18 months according to qualifications as defined in a prescribed scale.

Among the necessary qualifications are: to be within the age limits 21-24, and to be unmarried.

The regulations giving full details of qualifications—general, academic, military, and physical—are obtainable from the War Office. For the present the Army Council are prepared to accept 100 candidates a year from the Univs.

Permanent Commissions in the General Duties Branch of R.A.F. Permanent commissions in the General Duties Branch of the R.A.F. are granted to university candidates by the Air Council on the recommendation of their Universities. Officers of the General Duties Branch are taught to fly and undertake flying, technical, and administrative duties of the R.A.F. They are given opportunities for widely differing types of study and of specialized employment.

Recommended candidates must be graduates of a University in Great Britain or Northern Ireland; must be unmarried and within the age limits 20-25. Recommended candidates are invited to attend before a selection board which sits at the Air Ministry, in Oxford, in Cambridge, and at the Univ. of London. Selected candidates are granted commissions as pilot officers as from the date on which they join a training unit, and, subject to the proviso that a commission will not be antedated to a date earlier than an officer's 20th birthday, the commissions will be antedated so as to give seniority as pilot officers from a date 12 months prior to the date of their effective gazettement to the R.A.F. Candidates who have graduated with either first- or second-class honours may also be granted an additional antedate of 6 months regulated by age,

as in the case of the general antedate. In consequence of these privileges, candidates will normally become eligible for promotion to flying officer after 6 months. Promotion to the ranks of Flight Lieutenant and Squadron Leader is by seniority modified so as to give accelerated promotion to officers who qualify for technical, staff, or other special employment, and to officers who are recommended as being exceptionally suitable. Promotion to higher ranks is by selection. Emoluments in the R.A.F. have been fixed so as to allow officers even in the lowest ranks to live on their pay.

Intending applicants should write for information to the Secretary of the Air Ministry; applicants from Oxford or Cambridge should also get into touch with the University Air Squadrons. The conditions under which commissions are granted to graduates of certain recognized Universities in the self-governing Dominions can be ob-

tained from the Government of the appropriate Dominion.

Medical Branch of R.A.F. Permanent commissions are given by selection from among officers holding short service commissions as Medical Officers. So far as possible the entry of officers on short service commissions is regulated so as to give each entrant a 50 per cent. chance of a permanent commission. Short service commissions are given for 3 yrs. (extensible with the consent of the Air Council to 5 yrs.) on the recommendation of a selection board which sits at the Air Ministry. Candidates must be fully qualified medical practitioners under 28 yrs. of age. Certain advantages are given to candidates holding resident appointments in civil hospitals. Application for further information should be made in writing to: The Secretary, Air Ministry, Adastral House, Kingsway, London, W.C.2.

### Π

### ACCOUNTANTS, ACTUARIES, ETC.

## INSTITUTE OF CHARTERED ACCOUNTANTS IN ENGLAND AND WALES

Incorporated by Royal Charter in 1880. Address—Moorgate Place, London, E.C.2.

The *Preliminary* examn. for persons wishing to become Articled Clerks is held in London, Manchester, Birmingham, and Newcastle-upon-Tyne about the middle of May and November. It embraces: Dictation and short Engl. Composition, Arith., Algebra and Geom., Geog., Hist., a foreign language (Latin, Greek, French, German, Italian, or Spanish), and one of the following—Advanced Maths., Physics, Chem., Geol., Stenography. Exemption is allowed to persons who have passed certain other examns., such as Oxford Responsions, Cambridge Previous, and London Matrien. Minimum age for articles is 16.

The Intermediate examn, for Articled Clerks who have served half

of their term of service embraces Book-keeping and Accounts (including Partnership and Executorship Accounts and the Accounts of Limited Companies), Auditing and General Commercial Knowledge.

The Final examn. may not be taken till 2 yrs. after passing the Interm., but graduates articled for 3 yrs. only may take it 1 yr. after Interm. No person may enter for the Final unless he has served under Articles in England or Wales to a member for 5 yrs. (or, in the case of a graduate of a Univ. of the U.K., for 3 yrs.). It embraces Advanced Book-keeping and Accountancy, including Costing and Taxation, Auditing, Partnership and Executorship Law and Accounts, Principles of Law of Bankruptcy and of Law relating to Joint Stock Companies, the Rights of Liquidators, Trustees and Receivers, Principles of Mercantile Law and of Law of Arbitrations and Awards, and as an additional subject, either Banking, Currency and Foreign Exchanges, or Economics.

The Fee for admission to any of the examns. is 2 gs., and for Certif. of Exemption 1 g. Thirty days' notice is required, and late entries will

only be accepted up to 15 days on payment of a late fee.

No person may be admitted as Associate (fee 10 gs.) who has not passed the Final examn. The minimum age for admission is 21. Any person who, being an Associate, has for 5 yrs. been continuously in practice as a Public Accountant may be admitted as Fellow (fee 10 gs.). Distinctive initials: A.C.A., F.C.A.

## THE SOCIETY OF INCORPORATED ACCOUNTANTS AND AUDITORS

Incorporated 1885. Address—Incorporated Accountants' Hall, Victoria Embankment, London, W.C.2. Telegrams—Incorpac, Estrand, London.

Organization. Branches: in Scotland, Ireland, South Africa, Australia, and Canada, and 20 District Societies throughout the U.K. Students' Societies are attached to all Branches and District Societies.

Membership. Upwards of 5000, incl. women. Members, designated "Incorporated Accountants," are of two classes—Fellows (F.S.A.A.) and Associates (A.S.A.A.). Fellows must be either Accountants in Public Practice or Accountants to leading Public Bodies. Associates on election must be Accountants in Public Practice, Clerks to Accountants in Public Practice, or Accountants in the service of the Govt. or of Municipal Corporations.

Articles. Articles of Clerkship for 5 yrs. (reducible to 3 yrs. for approved Univ. Graduates) are a condition precedent to sitting for the professional Examns., except in cases of candidates of mature age having 9 yrs. approved bona fide professional experience, who are admitted to the Examns. without Articles upon conditions laid down in the special

Bye-laws.

Examinations and Fees. The Examns. are three: the Preliminary (fee, £2:2s.), to be passed before entering into Articles of Clerkship;

the *Intermediate* (fee, £2:12:6), to be taken at the expiration of 2 yrs. of the term of Articles; and the *Final* (fee, £3:3s.), to be taken during the last yr. of Articles. Hons. Certifs., Prizes, and Medals are awarded. The Examns. are held during May and Nov. in London, Manchester, Cardiff, Leeds, Dublin, Belfast, Glasgow, Cape Town, Johannesburg, and Durban. Exemption from the Prelim. Examn.. (fee, £1:11:6) obtainable upon production of certain Educational certifs.

Publications. Yearbook, 3s.; Journal, monthly, 12s. 6d. p.a.; Examn. Questions, 1s.

### CHARTERED ACCOUNTANTS OF SCOTLAND

The Society of Accountants, Edinburgh
The Institute of Accountants and Actuaries, by Royal
Glasgow
The Society of Accountants, Aberdeen

[1854.]
Charter
[1855.]
[1867.]

Secretary of the General Examining Board—D. Norman Sloan, C.A., 190 West George St., Glasgow. *Telegrams*—Loan, Glasgow.

A five-year apprenticeship with a Chartered Accountant of Scotland is required (reduced to 4 for graduates of a Univ. in G.B. or Ireland). Minimum age for apprenticeship, 17 years. Fee of £10:10s. payable on registration of Indenture of Apprenticeship, to Society or Institute to which apprentice's master belongs. Persons desirous of serving an apprenticeship must pass an examn. in Engl., Maths., a language other than English; and a 4th subject, of the standard of the Scottish Entrance Board's examns., or the equivalent (graduates of a Univ. in G.B. or Ireland exempted). The Intermed. Examn. must be taken in 2 divisions during the period of apprenticeship, fee I guinea each division, comprising Arith.; Algebra and Statistics; Book-keeping and Accounting must be passed during the last 3 years of apprenticeship. The Final examn. must be taken in two divisions, the 2nd being taken after the expiry of the apprenticeship. Fees, 1 g. and 2½ gs. Certain courses must be taken at one or other of the local univs. before the apprentice presents himself for either of the two divisions. This examn. embraces appropriate Scottish Law, Book-keeping and Accounting, Insolvency, Trust, Income Tax, Cost, and other Accounts. The examns. are held in May and Dec. Distinctive initials: "C.A." Detailed syllabus to be had from Sec.

### THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

Incorporated 1919 under licence from the Board of Trade. Address—6 Duke St., St. James's, London, S.W.1.

Among the objects are: (1) To improve the professional status of Cost Accountants, and by means of examns. to test the skill and knowledge of persons desiring to enter the profession, and to issue qualifying

certifs.; (2) To improve the facilities at present available to persons entering the profession for acquiring the necessary training and education; (3) To exercise professional supervision over the members of the Inst., and to frame and establish rules for the observance in all matters pertaining to professional practice; (4) To hold conferences and meetings for the discussion of professional subjects, and to collect, collate, and publish information of service or interest to members of the profession.

Membership of the Inst. by examn. is granted to candidates who have passed (a) the Preliminary, (b) the Intermediate, (c) the Final Examn. Exemption from the Preliminary may be granted to graduates of any Univ. in the U.K. and to persons who have passed certain Univ. and recognized School examns. Clerks articled under a member of the Inst. must have served 2 yrs., and Univ. graduates 18 months after passing the Intermediate Examn. before admission to the Final Examn.

Examination Fees: Preliminary, 1 guinea; Intermediate, 1½ gs.; Final, 2 gs. Membership Fees: Associates, 5 gs., Entrance, 2 gs. annually; Fellows, 7 gs., Entrance, 3 gs. annually.

Distinctive initials: A.C.W.A., F.C.W.A.

### INSTITUTE OF ACTUARIES

Established 1848. Incorporated by Royal Charter, 1884. Address—Staple Inn Hall, Holborn, London, W.C.1.

Examinations qualifying for membership are held in May of each year, or at such other times as may be prescribed by the Council. Candidates must give 14 days' notice. Applications for examn. outside the U.K. must reach the Hon. Secretaries 2 months before the date of examn.

Candidates for *Studentship* must have passed: (1) a preliminary examn.; (2) Part I. of the Institute's own Examn. Syllabus (Advanced Algebra, Probability, Finite Differences and Elementary Calculus).

Candidates for Associateship must be "Students" and have passed Parts I., II., and III. of the Syllabus. Candidates for Fellowship must be Students or Associates and pass the 4 Parts of the Syllabus. Examn. Fees, 2 gs. for each Part. Distinctive initials: A.I.A., F.I.A.

### THE CHARTERED INSURANCE INSTITUTE

Founded 1897, and incorporated by Royal Charter, 1912. Address—11 Queen St., London, E.C.4. Membership consists of the members of Local Insurance Insts., of which there are 39 in the U.K. There are also 10 affiliated Institutes in Toronto, Adelaide, Melbourne, Sydney, Perth, Cape Town, Johannesburg, Hobart, Launceston, and Montreal. Examns. qualifying for Associateship (A.C.I.I.) and Fellowship (F.C.I.I.) are held in March. Journal published annually.

### III

### INSTITUTE OF PUBLIC ADMINISTRATION

Established 1922 to develop the Civil Service and other Public Services (both national and local) as a recognized profession, and to promote the study of Public Administration in this and other countries. Offices—Palace Chambers, Bridge St., Westminster, S.W.r.

Regional Groups have been founded in Birmingham, Manchester, Edinburgh, Liverpool, Leeds, Nottingham (East Midlands), Sheffield, Newcastle, Glasgow, Hull, Pretoria (South Africa), Adelaide (South Australia), and Melbourne (Victoria); and are in course of formation at Bristol, East Anglia, Cardiff, and Belfast. Monthly lectures are held in the towns where Groups have been already founded, and at Montagu House, Whitehall, London. Courses of lectures are also given in connexion with the Univs. of Birmingham, Manchester, Liverpool, Leeds, Sheffield, Glasgow, and London. A Conference is held every summer at either Oxford or Cambridge, and one every winter usually in London. Subscription—Members, 2 gs.; Associate Members, 25s.; Associates, ½ g. per annum. The Journal, Public Administration, is published quarterly by the Oxford University Press (annual subs. 12s. 6d. post free), and a members' monthly circular (Monthly Notes).

### IV

### AGRICULTURE, DAIRYING, HORTICULTURE, Etc.

### NATIONAL AGRICULTURAL EXAMINATION BOARD

The Board was appointed by the Royal Agricultural Society of England (16 Bedford Sq., London, W.C.r) and the Highland and Agricultural Society of Scotland (8 Eglinton Crescent, Edinburgh).

An examn. in the Science and Practice of Agriculture is held annually for the National Diploma in Agr. (N.D.A.). Qualifications for admission: a certificate from a recognized Agr. College that his attainments in General Bot. and Chem., Geol., Physics, and Mechanics justify the candidate's admission; or evidence of (a) having passed the 1st B.Sc. or Interm. examn. in Science of a British Univ.; or (b) having passed the Oxford or Cambridge School Certificate examn., with evidence of having continued study of science for at least a yr., and a certif. in Elem. Chem. and Physics and Bot. of Group H of the Oxford Higher Local or Group E of the Cambridge Higher Local examn.; or (c) Interm. Leaving Certif. of the Scottish Ed. Dept., with evidence of having con-

tinued study for at least another yr., and the Higher Leaving Certif. in Science, including Chem. and Bot. Before the first three written papers are taken, candidates must also produce evidence of having resided on a farm for a period (or 2 periods) covering a complete year of farming operations. The subjects of the written papers are Practical Agr.; Farm Machinery and Implements; Land Surveying and Farm Buildings; Agr. Chem., Bot., Book-keeping and Zool.; Vet. Sc. They may be taken all at one time, or 3, 4, or 5 in one yr. and the remainder the next yr. Fee (non-returnable) for entire examn., 6 gs.

### NATIONAL DAIRY EXAMINATION BOARD

The Board consists of representatives of the Royal Agricultural Society of England, the Highland and Agricultural Society of Scotland, and the British Dairy Farmers' Association. *Address*: 16 Bedford Square, London, W.C.I.

An examn, in the Science and Practice of Dairying is held annually in England and Scotland for the Nat. Dipl. in Dairying (N.D.D.).

Qualifications for admission: (a) a Diploma course in the subjects of the examn. covering two academic yrs., including at least 6 session months' instruction in practical dairy work at an approved dairy training institution; also (b) at least 6 months on an approved dairy farm (not concurrent with period mentioned under (a)). The examn. includes tests of practical skill in Dairying and of the candidate's knowledge.

The examns, are held in England and in Scotland. A candidate may not enter for the examns, in both countries.

Examn. papers of past years (6d. a set) and a detailed syllabus of subjects of examn. are obtainable from the Secretary.

### HORTICULTURE

The examns. for the National Diploma (N.D. Hort.) were established in 1912 by the ROYAL HORTICULTURAL SOCIETY, Vincent Square, London, S.W.I. They are usually held in May and June in London and elsewhere. The *Preliminary* examn. is open to candidates who have received a sufficient general education, who are at least 21 yrs. of age and have served at least 4 yrs. in a public or private garden or nursery, or taken a 4 yrs.' course in an approved Horticultural Institution, or spent 4 yrs. partly in the former and partly in the latter. The *Final* examn. is open to candidates who have passed the preliminary examn. and have been regularly employed in the practice of Horticulture for at least 6 years. Other examns. held by the Society every yr. are the Genl. Examn. in Horticulture (for Junrs. and Senrs.), and the Teachers' Examn. in School and Cottage Gardening (Prelim. and Advanced).

Scholarships for young gardeners are given from time to time, tenable at the Society's School of Horticulture at Wisley, Surrey.

Fuller particulars and entry forms from The Secretary, Royal Horticultural Society, Vincent Square, London, S.W.r.

### NATIONAL POULTRY DIPLOMA EXAMINATION BOARD

This Board, formed by the National Poultry Council, includes representatives of the Ministry of Agriculture, the Scottish Board of Agr., the Dept. of Agr. for Northern Ireland, Leeds Univ., S.E. Agr. College (Wye), Harper Adams Agr. College, Reading Univ., School of Agr., Cambridge, Midland Agr. Coll., Lancashire Co. Farm Inst., Swanley Hort. Coll., and several other bodies. The Chairman is P. Hedworth Foulkes, B.Sc., late Principal of Harper Adams Agr. College, Newport, Salop. It holds examns. annually, and awards a National Diploma in Poultry Husbandry (N.D.P.) and a Public Elementary and Secondary School Teachers' Certificate in Poultry Husbandry.

Qualifications for admission to the Diploma examns. (fee, 5 gs.): i. Passing the Board's Prelim. examn. (fee, 2 gs.) in Elem. Chem., Physics, Biol., and Maths., or producing other satisfactory evidence, e.g. Matriculation certificate, of knowledge of the above-mentioned sciences; ii. Training in Poultry Husbandry in a recognized Teaching Instn. for at least a year; iii. Experience on an approved Poultry Farm for at least a year. The subjects of the examn. are Poultry Husbandry in all branches and, in so far as they relate to this, Agr. and Horticulture, Anat., Physiol., Pathol., Chem. and Physics, Building and Appliance

Construction, Book-keeping. Next examn. Sept. 1932.

Applications receivable by the Secy., National Poultry Council, Sentinel House, Southampton Row, London, W.C.I.

### ROYAL INSTITUTE OF BRITISH ARCHITECTS

#### BOARD OF ARCHITECTURAL EDUCATION

Founded 1834. Incorporated by Royal Charter in 1837. Address— 9 Conduit St., London, W.I. Telegrams—Ribazo, Piccy, London.

The Recommendations of the R.I.B.A. in regard to preliminary and professional education imply a course of professional training in schools occupying at least five years, during the last 2 vrs. of which the student would be working part-time in an architect's office—the training being kept under the supervision of the Board of Architectural Education of the R.I.B.A. or its delegates during the whole term.

Registration as Probationer, R.I.B.A. (fee, 4 gs.). Candidates must produce evidence of good general education. This evidence, except in very special cases, must be (a) a certif. from one of the Schools of Archit. recognized for exemption from the R.I.B.A. examns., to the effect that the applicant has passed, or has received exemption from the School Entrance Examn., or (b) a certif. of having passed one of the examns. recognized by the R.I.B.A. for the Probationership. All

applicants must submit drawings showing that they possess some knowledge of Drawing, except (a) when the applicant submits a certif. of having passed or received exemption from the Entrance Examn. to one of the Recognized Schools of Archit., or (b) when the applicant submits a certif. of having passed one of the recognized public examns. with credit in Drawing or Art. Candidates who are unable to submit certifs. of general education in accordance with the regns. may make special applications, which will be considered on their merits by the Board of Architectural Education. A list of the Recognized Schools of Archit. is given in the following paragraphs, and particulars regarding them are given in the Explanatory Pamphlet," see below.

The Intermediate examn. (fee, 5 gs.) is held in May or June and Nov., and is open to Probationers of at least 19 yrs. of age. It tests their progress while engaged as pupil, improver, or asst. in an office, and passing it qualifies for election as Student, R.I.B.A. Exemption from this examn. (but not from the fee) may be granted to Probationers who have attended the necessary courses at one of the following schools: Architectural Assocn., London; Northern Polytechnic, London; The Polytechnic, Regent St., London; Univs. of Cambridge, Liverpool, London, Manchester, Sheffield, Dublin; Birmingham School of Arch.; Armstrong Coll. (Newcastle); Leeds Coll. of Art; The Technical Coll., Cardiff; Royal West of England Academy, Bristol; The Leicester Coll. of Arts and Crafts; The Municipal School of Art, Nottingham; The Municipal School of Arts and Crafts, Southend-on-Sea; Robert Gordon's Coll., Aberdeen; Edinburgh Coll. of Art; Glasgow Sch. of Arch.; Univs.: McGill, Manitoba, Toronto, Sydney, New Zealand, Cape Town, Witwatersrand; Bombay School of Art. The R.I.B.A. desires that Students within reach of these Univs. and Schools should avail themselves of the opportunities thus afforded rather than submit themselves for the examn. without such recognized training.

The Final examn. (fee, 6 gs.) for the Associateship, R.I.B.A., is held in July and Dec., and is open to Students of at least 21 yrs. of age. Before admission a candidate must submit for approval designs in answer to at least 4 problems set by the Board. Exemption from the Final examn. is given to Students who have completed successfully a Dip. or Degree course covering at least 5 yrs. at the Arch. Assn. London, Birmingham School of Arch., Leeds Coll. of Art, Liverpool Univ., London Univ., Manchester Univ., Robert Gordon's Colleges, Aberdeen, Glasgow Sch. of Arch., Edinburgh Coll. of Art, Technical Coll., Cardiff; Univs.: McGill, Toronto, Sydney, Cape Town, Witwatersrand.

A Special examn. (fee, ro gs.) for the Associateship is held in July and Dec. It is open to Architects in practice and Assts. not less than 30 yrs. of age whose applns. are approved by the Board, and exempts from the Prelim. and Interm. examns. and from submitting testimonies of study.

Admission to the *Licentiate* Class has recently been re-opened. Candidates for election to this Class must have attained the age of 30 yrs., and either (a) have been engaged as principals for at least 5 successive yrs. in the practice of Arch., or (b) have been engaged for at least 10 successive yrs. in the practice or the study of Arch.

A Licentiate (L.R.I.B.A.) is a fully qualified corporate member, and is entitled to the designation "Chartered Architect."

Examns. (fee, 3 gs.) qualifying for candidature as *District Surveyor* in London or *Building Surveyor* under local authorities are held periodically.

In July 1931 the Architects (Registration) Act, 1931, was passed, establishing the Architects Registration Council of the United Kingdom, the duty of which is to set up and maintain a register of architects entitled to be registered under the Act, with power to remove the names of all registered persons who apply for removal, and the names of all those who shall have died. Only persons so registered will be entitled to use the name, title, or style of "Registered Architect." Under the Act a Board of Architectural Education and an Admission Committee are to be appointed annually by the Council, both constituted in accordance with Schedules to the Act. The Council also have power to remove the name of any registered person convicted of a criminal offence, or, on the report of a special committee appointed for the purpose, to remove the name of any "person . . . guilty of conduct disgraceful to him in his capacity as an architect."

Allied Societies and branches thereof exist in 54 towns in the U.K., in Montreal, Edmonton (Alta.), Toronto (Ont.), Regina (Sask)., Vancouver (B.C.), Winnipeg (Man.), Moncton (N.B.), Adelaide, Melbourne, Brisbane, Sydney, Hobart, Perth, Wellington (N.Z.), Cape Town, Salisbury, Bloemfontein, Durban, Johannesburg, Nairobi, Singapore, Bombay, and Rangoon.

The Royal Institute of British Architects offers a number of Prizes and Studentships, particulars published annually in the R.I.B.A. Prizes and Studentships Pamphlet, price is. See also p. 758, infra.

Publications include the Kalendar, 3s. 9d., containing, inter alia, a historical sketch, regns. for international and other competitions, and information about the allied societies. Journal, in 20 numbers annually, 1s. 6d. each. Explanatory Pamphlet on Examns., 1s. and postage. Past Examns. Questions, price 1s. and postage.

### VI

## THE AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE OF THE UNITED KINGDOM

Founded 1886. Address—29 Lincoln's Inn Fields, London, W.C.2.

Examinations are held annually in March in London, Birmingham, Bristol, Cardiff, Manchester, Newcastle-upon-Tyne, and Belfast.

The Preliminary (fee, 1 g) is for the grade of *Student Member*, the Intermediate (fee, 2 gs.) for the grade of *Licentrate*, and Final (fee, 3 gs.), or the Direct Final (fee, 5 gs.), for the grades of *Associate* (A.A.I.) and *Fellow* (F.A.I.).

The subjects of the *Preliminary* are English, Arith., Algebra, Geometry, Mod. English, Hist., and one only of the following *optional subjects*, French, Latin, German, Modern Geog., Gen. Knowledge. Exempting examns.: Matricn. of a Univ. in the U.K., Prelim. of Law Soc., Surv. Instn., Inst. C.A., Soc. of Inc. Acctts. and Audtrs., Special Army Ed. Certif., London Chamber of Com. (Comml.), and the school certificate examns. conducted by certain Universities.

The Intermediate is open to Student Members and Articled Clerks and others who have gained practical experience. Minimum age, 19. The subjects are Book-keeping, Plans and Mensuration, Valuation Tables, Law of Landlord and Tenant, Dilapidations and Fixtures, Building Construction, and 1 out of 4 other subjects. This examination is open only to those who have passed or been exempted from the Institute's Preliminary Examn. unless the candidate is 25 years of age or over, when he is required to take the 2 additional subjects of English and Arithmetic at the Interm. Examn.

The Final is open to persons who have passed or been exempted from the Interm.; the Direct Final, to persons not less than 25 yrs. of age who fulfil certain conditions as to practical experience. The subjects of the Final are: Valuations, Law of Vendor and Purchaser, Elements of Law of Receiverships and Mortgage, Arbitrations and Compulsory Purchase, Sanitation, Law and Practice of Rating and Taxation, Report Writing, Specifications and Estimates for Repairs to Buildings, and one out of a list of 6 other subjects. The Direct Final, in addition to the 9 subjects of the Ordinary Final Examn., includes also the following from the Interm. list: Bookkeeping, Plans and Mensuration, and Law of Landlord and Tenant.

Exemptions. A candidate who has passed the Interm. Examn. for the B.Sc. (Estate Management), Univ. of London, will be exempted from Subjects 1, 2, and 4. If he has taken Agric. in his Interm. B.Sc. Examn., he will be exempted from Subject (d). If he has passed the Final of the B.Sc. Examn., or holds the B.A. degree in Estate Management of Cambridge Univ. or the B.A. degree in Agric., together with the Dip. in Rural Econ. of Oxford Univ., he will be exempted from the Interm. and

Final Examns. of the Institute entirely. The holder of any other degree of a recognized British Univ. is exempted from the Interm. entirely, but is required to take the *whole* of the Final Examn. A Candidate who holds the National Diploma in Agric. may obtain exemption from Subjects 1, 2, 4, 6, and (d) in the Interm. Examn.

Minimum age for admission to Student Member grade, 16; Licentiate grade, 19; Associate grade, 21; Fellow, 25. Candidates must also

fulfil specified conditions as to practical experience.

Publications: Regns. and Syllabus and particulars of Prizes and Scholarships (value up to £50 each), post free. Last Examn. Questions, Preliminary Examn., 1s.; Professional Examns., 2s.

## THE COLLEGE OF ESTATE MANAGEMENT

Incorporated by Royal Charter. Address—35 Lincoln's Inn Fields, London, W.C.2.

Instruction—daytime, evening, and by postal tuition—in preparation for the examns. of the Univ. of London (B.Sc. degree), the Surveyors' Instn., the Auctioneers' and Estate Agents' Institute, and the Land Agents' Society. Principal, B. W. Adkin, F.S.I., F.A.I., F.E.S., M.R.A.S.E., Barr.-at-Law. Directors of studies in Urban and in Rural Science and 30 other Lectrs. and Instrs. A Travelling Scholarship, maximum value £300 for 1 yr., is offered by the College, see Appendix XXIII. 3.

## THE LAND AGENTS' SOCIETY

Incorporated by Royal Charter. Address—12 Little College Street, London, S.W.I. Telegrams—Langensoc, Parl., London.

Qualifications for (1) Fellowship: Having passed the Society's examns. and being a genuine manager of a certain acreage and having been professionally employed for at least 5 yrs. The Council have special dispensing powers to elect as Fellows, without examn., Land Agents of exceptional standing and experience. (2) Qualified Associateship: Having passed the Society's examns. and having had at least 2 yrs.' practical experience other than as a pupil paying a premium.\*
(3) Associateship: Being a Pupil with a Land Agent who is, or is qualified to be, a Fellow or Qualified Associate.

Examinations annually in March. Entries up to Dec. r. Scottish candidates are examined in Edinburgh. Fee for each Part, 4 gs. Part I. comprises Agric. (Elementary), Surveying, Agr. Law (Elem.), Taxation and Charges on Land, Building Constn., etc., Forestry, Book-keeping. Part II. is of an advanced character to test practical knowledge. Candidates 35 years of age and over, with seven years' responsible experience, are permitted to sit for Part II. as a Direct Fellowship Examination. Syllabus and previous Examn. Papers may be obtained from Secretary.

Journal, published monthly, 2s. 6d. to non-members.

\* Agents, sub-agents, and assistants who may be eligible from the practice point of view for Fellowship and Qualified Associateship, except that they have not passed the Society's examns, may be elected to Associateship on giving an undertaking to pass those examns, within stipulated periods.

## VII

#### THE INSTITUTE OF BANKERS

Founded 1879. Address—5 Bishopsgate, E.C.2. Local centres in Bath, Bedford, Birmingham, Blackpool, Bournemouth, Bradford, Brighton, Bristol, Cambridge, Cardiff, Channel Islands, Chatham, Chester, Cornwall, Derby, Eastbourne, E. Kent, Exeter, Gloucester, Grimsby, Hull, Ipswich, Leeds, Leicester, Lincoln, Liverpool, Middlesbrough, Mid-Lancs., Newcastle-on-Tyne, Northampton, N. Staffs, N. Wales (2 centres), Norwich, Nottingham, Oxford, Peterborough, Plymouth, Portsmouth, Reading, Richmond and Kingston, Sheffield, Southampton, Southend, Swansea, Yeovil, York. Subscription, ½ g. to 2 gs. p.a.

Qualifications for election to Associateship: (a) 10 yrs.' service in a Banking Establishment, or (b) passing approved examns., or (c) being a graduate of a University and on the staff of a Banking Establishment. Ordinary members are elected from the staff of any Banking Establishment on the Council's list. Associates by examination may add to their names or signatures, "Cert. A.I.B."

Examinations, open to members only, (i.) For the Associate Certificate, held in April in London, the provinces, and abroad. Latest entry date-Feb. 15.\* Subjects: Practice and Law of Banking, Economics, Engl. Compn., Comml. Geog., Foreign Exchange, Book-keeping and Accountancy; optional—French, Spanish, Italian, Portuguese, German. The examn, is divided into two parts extending over not less than 2 yrs. No Member may enter for the Associate Examination unless he has either passed a Qualifying Examination or obtained exemption on account of passing one of the recognized "First Examinations," or passed the Bank Common Entrance Examn., or on account of his age and length of bank service. Examns. exempting from Part I. in Practice and Law,—examns, for B.Com. of Bombay or Lucknow with Banking as special subject; in Econs.,—examn. by Prof. Knoop at Univ. of Sheffield. Certain certificates obtainable in London, Birmingham, Bradford, Cardiff, Exeter, Hull, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, Scotland, and Ireland are also recognized. (ii.) For Diploma in French, Spanish, Portuguese, Italian, and German, held annually in the spring. Scholarships entitling holder to spend 2 months in a bank abroad are awarded in connexion with the Diploma examns.

Courses of *Lectures* in Banking and kindred subjects are given during the winter in London and some provincial towns. *Library* (lending), 7000 vols. *Journal*, monthly, Oct. to June, 1s. 6d. (15s. p.a., post free). *Examn. Questions*, 6d. each yearly set. The Examn. Syllabus may be obtained on application to the Secretary.

<sup>\*</sup> For members outside Europe: January 30,

# VIII

# INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND

Founded 1877. Incorporated by Royal Charter, 1885. Address—30 Russell Sq., London, W.C.I. Library, 4500 vols. Laboratories, available for examns. by other institutions. Appointments Registers of Fellows, Associates, Registered Students, and Lab. Assts.

Studentship. Minimum age, 16. Annual subs., 10s. A candidate must have passed an approved examn. of matricn. standard and must be undergoing a course of preparation and training for the practice of Chemistry in a teaching institution recognized by the Council, or as a pupil of a Fellow of the Institute in a lab. or works approved by the Council.

The institutions recognized for training candidates for the examns. of the I.C. are those connected with the Univ. of London on pp. 109 et seq.—(U.), (K.), (Im.), (Bk.), (Bedf.), (Roy. Holl.), (EL.) (2), (5), (8), (10) (evening), (11), (12); Armstrong Coll., Newcastle, and Durham laboratories; Constituent Colls. of Wales and of N.U.I.; all other Univs. in the U.K.; Univ. Colls., Exeter, Leicester, Nottingham, and Southampton; Belfast, Dublin, Univ. Coll. (N.U.I.), Birmingham Cent. Tech. Coll., Blackburn Munic. Tech. School, Bradford City Tech. Coll., Derby Tech. Coll., Huddersfield Tech. Coll., Hull Tech. Coll., Leeds Tech. Coll., Liverpool Cent. Tech. Coll., Loughborough Tech. Coll., Manchester Tech. Coll., Newcastle-on-Tyne, Rutherford Tech. Coll., Salford Royal Tech. Inst., Wigan Mining and Tech. Coll., Cardiff Tech. Coll., R. Tech. Coll. Glasgow, Heriot-Watt Coll., Edin., Paisley Tech. Coll.; Overseas Univs.—McGill, Queen's (Ontario), Toronto, Adel., Melb., Syd., W. Aust., N.Z., Cape Town, South Africa—Coll. Sc. Transvaal, Stellenbosch.

The compulsory subjects of training are Chem., Physics, Maths., and one other optional Science subject, the course in Chem. extending over 4 yrs. Evening class training is recognized if the candidate is engaged in the practice of Chem. during the day and attends a systematic course previously approved by the Council extending over 5 yrs., and is recommended by his teachers. Evidence of having passed the class or other examns. is required.

The A.I.C. examn. in General Chemistry (inorganic, organic, and physical), fee, 5 gs., occupies 6 days, including 4 days of practical Chem., and is open to students who (i.) have completed the prescribed training, or (ii.) have obtained a degree including the necessary subjects, and worked for a further yr. in a recognized Univ. or Coll., or for 2 yrs. with a Fellow in a lab. or works approved by the Council, or (iii.) have been otherwise trained to the satisfaction of the Council and been engaged in the study and practice of Chem. for 8 yrs. The A.I.C. may be granted (without examn.) to graduates with 1st or 2nd Class

Hons. in Chem., or holders of diplomas recognized as equivalent, who have completed a 4 yrs.' course in the requisite subjects or a 3 yrs.' course supplemented by approved experience in laboratories or works. Applications from candidates having diplomas of Dominion or foreign Univs., or of a specialized character, will be decided on their merits. Entrance fee, 2 gs. Annual subsn., 1\frac{1}{2} gs.

Associates must be registered as such for 3 yrs. before election to the F.I.C. The F.I.C. examn., fee, 10 gs. (for Associates, 5 gs.), occupies at least 5 days in any one of the following branches: Inorganic, Physical, Organic, Bio-Chemistry, Agricultural, Foods and Drugs and Water, Industrial Chem., with special reference to particular industries. In exceptional cases other candidates who have been systematically trained and have had considerable experience may be examined for F.I.C. The F.I.C. may also in exceptional circumstances be granted without examn. to Associates of 3 yrs.' standing who have carried out original research or devised processes or inventions or given other sufficient evidence of knowledge and ability. Entrance fee, Non-Assocs., 5 gs., Assocs., 3 gs. Annual subsn., 2 gs.

Arrangements have been made between the Board of Education and the Institute for the award of National Certificates in Chem. to students in technical schs. and colls. in England and Wales (Rules 100, 1921, 2d.). The Institute in conjunction with the Board approves schemes of training submitted by the technical schs. or colls., for the award of certifs. for part-time grouped courses, including in addition to chem. suitable courses in physics, mathematics, and cognate subjects. Courses for Part-time Course certifs. are designated Senior for the Ordinary and Advanced for the Higher certif. There is a similar scheme in Scotland, in conjunction with the Scottish Education Dept., and a scheme has been arranged with the Ministry of Education, Northern Ireland. Holders of Part-time Certifs. can ascertain from the Registrar of the Institute how far their training qualifies for admission to the examn. for the Associateship.

Pedler Research Scholarship, open to Fellows and Associates of the Institute, £300 a year, for at least 12 mos. The Scholar, who may not hold any other Scholarship or Bursary without the knowledge and consent of the Council, must work on a problem suggested by the Council which needs investigation in the public interest. Awarded as funds permit. Particulars from the Registrar of the Institute.

Publications. Register of Members; Regns. for Admission; Examn. Papers, 1s. a set; List of Official Chemical Appointments, 7th edition, 1931, 5s. net. (This includes a List of Societies and Institutions directly interested in the advancement of Chemical Science and Technology, with information as to their chief objects.) Journal and Procades., 6 parts annually, 2s. each; History of Inst., 21s.; The Profession of Chemistry, 2s. 6d.; Lectures (monographs on various industries—Branches of chemical practice, etc.) at various prices.

### CHEMICAL SOCIETY

Address—Burlington House, London, W.r. Professional qualification not required. Entrance by ballot, annual subs.,  $f_3$ . Monthly Journal and Abstracts. Annual Reports on the progress of Chemistry. Research Fund from which grants are made (to the amount of about £700 p.a.) for purchase of special materials for research. See p. 776.

# IX

#### THE INSTITUTION OF CIVIL ENGINEERS

Established 1818. Incorporated by Royal Charter, 1828. Address—Great George St., Westminster, S.W.r. Telegrams—Institution, London.

Examinations, (i.) Preliminary and (ii.) Associate Membership, are held annually in April and Oct. in London. Entries receivable up to Feb. 28 and Aug. 31. The April and Oct. examns. may also be held in Manchester, Glasgow, Newcastle-upon-Tyne, and Dublin, the Oct. examn. in the King's Dominions overseas. (i.) may also under certain conditions be held overseas.

For admission to (i.) nomination by a corporate member is necessary, and conditions as to practical training have to be fulfilled. It includes English, Maths., and one language and one science subject from the following: Elem. Chem., Elem. Mechanics, Elem. Physics, Latin, Greek, French, German, Ital., Span., Port., Dutch, Hindustani, Russian, Chinese, Japanese.

Admission to (ii.) is open to (a) Students of the Instn. (v. infra) of at least r yr.'s standing between ages 21 and 26, and (b) persons of at least 25 yrs. of age who have passed or are exempt from (i.) and are in other respects (training, experience, etc.) qualified for election into the Institution. It includes papers in (A) Mechanics, Strength and Elasticity of Materials, Electricity and Magnetism, either Theory of Structures or Theory of Machines; (B) 2 out of 9 other subjects; and (C) Engin. Drawings. Specifications, and Quantities.

For admission as Student age must be between 18 and 25, and candidate must be recommended by a corporate member under whom he is or has been in course of preparation and training in accordance with the Instn.'s prescriptions. A candidate for election as Associate Member must satisfy the Council as to his training and experience, and must, unless exempted, pass (i.) and (ii.). Exemption from (i.) is granted to graduates of any Univ. of the Empire, to Whitworth Scholars and, subject to provisos, to persons who have passed certain school and matriculation examns. in Great Britain and Ireland, Canada (McGill Univ.), Australia, New Zealand, and South Africa. Exemption

from sections (A) and (B) of (ii.) is granted for the following degrees if taken after 3 yrs.' study in the several Univs. in accordance with their regns.: Oxford B.A. with Hons. in Eng. Sc. Final Hons. Sch.; Camb. B.A. Hons. Mech. Sc. Trip. or Ord. degree (B.A.) in Eng., provided the graduate has passed in the principal subjects, Eng. I., II., and III.; B.Sc. in Eng. (Hons. or Ord.) of Edin., St. Andrews, Aberdeen, Glas.; Civil or Mech. or Elect. Eng. or in Naval Arch. (Hons. or Ord.); Belf., S. Africa (until 1921), Cape Town, and Witwatersrand in "Civil" or "Mech. and Elec."; B.A.I. of Dublin, Ord., or with Hons. in Eng.; B.E. Nat. Univ., Ireland; and, subject in some cases to certain qualifications, Eng. degrees of all the other Univs. of E. and W. and of McGill, Toronto, Adel., Melb., Queensland, W. Australia, Sydney, Tasmania, and N.Z. There is no exemption from Section (C).

Members and Associate members are entitled to the designation

Chartered Civil Engineer.

Publications. Report on Methods of Educn. and Training of all Classes of Engrs., 1906, Wm. Clowes, 94 Jermyn St., S.W.1, post free, 11d.; Report of Confce. on Educn. and Training, June 1911; Papers and Reports on Technical Subjects.

#### THE INSTITUTION OF ELECTRICAL ENGINEERS

Founded 1871. Incorporated by Royal Charter, 1921. Address—Savoy Place, Victoria Embankment, London, W.C.2. Telegrams—Voltampere, Phone, London.

Examinations are held in London and other centres in Great Britain, in May and November, of candidates for Graduateship. Applications should reach the Secy. not later than Apr. 1 and Oct. 1 respectively. Examns. may also be held abroad in Nov. Part I. includes English; Applied Mechanics, Elec. Technology; and either Heat, Light, and Sound or Chem. Part II. consists of papers on technical subjects.

A candidate for Associate Membership is required to possess an approved educational qualification, or to pass the grad. examn. or in approved cases to present a satisfactory thesis, paper, or other written work on Elect. Eng. or its applications. He must also be at least 26 years of age, and must be engaged in one of the branches of Elect. Eng., and satisfy the Council as to his experience, etc.

An Engineering Degree of any Univ. in the British Empire approved for the purpose is recognized, subject to certain provisos, as an approved educational qualification. Certain diplomas in electrical engineering are

likewise recognized.

National Certificates and Diplomas are awarded by the Institution jointly with the Board of Education or the Scottish Edn. Dept. on lines similar to those for Mech. Engineers; v. infra.

The following scholarships are awarded annually by the Council:

Duddell Scholarship. £150 p.a., tenable for 3 yrs. Each candidate must be nominated not later than June 15 by a Corporate Member of the Instn., and preference will be given to candidates whose fathers or a near relative are, or have been, members of the Instn. Open to

British subjects under 19 yrs. of age on July 1, who have matriculated or passed an examn. exempting from Matricu., and who wish to take up a whole-time day course in Elect. Eng.

Ferranti Scholarship. £250 p.a., tenable for 2 yrs. Each candidate must be nominated not later than Aug. 15 by the Professor or Teacher under whom he is working or has worked, and preference will be given to candidates whose fathers are, or have been, members of the Instn. Open to British subjects under 26 yrs. of age on July 1 who are Students or Graduates of the Instn., of not less than two yrs.' standing, and have completed to the satisfaction of the Council a recognized elect. eng. course of at least three yrs., and who desire to carry out whole-time research or post-graduate work.

Silvanus Thompson Scholarship, for works employees. £100 p.a. and tuition fees, tenable for 2 yrs. Each candidate must be nominated not later than June 15 by a Corporate Member of the Instn., and must be the son of parents of limited means. Open to British subjects under 22 yrs. of age on July 1, who desire to take up a whole-time day course in Elect. Eng. and who (a) have served a minimum apprenticeship (or its equivalent) of 3 yrs. at an approved Elect. Eng. works, and (b) in addition to having taken full advantage of available opportunities for tech. education, have acquired a marked degree of skill, and/or shown evidence of originality.

Applications (specifically mentioning the name of the Scholarship) for particulars and Nomination Forms should be addressed to the Secretary.

#### THE INSTITUTION OF MECHANICAL ENGINEERS

Established 1847. Address — Storey's Gate, St. James's Park, London, S.W.1. Telegrams—Mech. Parl., London.

Examinations are held in London and at provincial centres in April and Oct., and at overseas centres in Oct.: (i.) Studentship Examn. (minimum age, 16), including papers in General Knowledge (English, Hist., Geog.), Elem. Maths., Elem. Mechanics, and either Physics or Chem. (ii.) The Associate Membership Examn., including—Section A: a Modern Lang., App. Maths., Physics and Chem.; Section B: Theory of Machines and Machine Design, Properties and Strength of Materials, and an optional technical subject; also Section C: The Economics of Engineering.

A candidate for election as *Graduate* must, unless exempted (see below), have passed Sections A and B of examn. (ii.), and have received or be receiving sufficient regular training as a mechanical engineer to fit him for employment as such. Minimum age, 21.

A candidate for election as Associate Member must be a practising Engineer at least 25 yrs. of age. The passing of the A.M. or equivalent examn. is indispensable up to the age of 33, and he must also have been regularly trained as a M.E. and have had sufficient practical experience in the direction or design of Engineering work.

Examns. exempting from (i.): a degree of any recognized Univ. in

the British Empire; matriculation and School Certificate Examns. of various Univs. and other examining bodies in Gt. Britain and Ireland; certain examns. of matricn. standard held in South Africa, Australia,

New Zealand, and Hong-Kong; certain other examns.

Examns. exempting from Section A and Section B of examn. (ii.): Eng. degrees of any Univ. in Gt. Britain, Ireland, or British Dominions, except such as may be specifically excluded; Eng. degree of a foreign Univ. if recognized by the Council; Diploma in Eng. of Univ., King's, or City and Guilds (Engin.) Coll., London; Final Dipl. in Mech. or El. E. of R.T.C., Glas., if approved Matricn. examn. passed before beginning course; R.N. examn. qualifying as Lieut. (E.); R.N. College Prof. Certif. for Constructors; Inst. C.E., Assoc. M. examn., provided certain subjects are passed; Whitworth Scholps. and Exhibns.

National Certificates and Diblomas are awarded by the Institution in conjunction with the Board of Education to students of approved Technical Schs. and Colls. (v. Board of Education, Rules 106, 1d.). Certificates are awarded in respect of part-time and Diplomas in respect of full-time grouped courses. Part-time courses are classified as Senior or Advanced, the latter aiming at reaching, within the limits of the subjects covered, the standard of University work. Full-time courses are also classified as Senior (for Secondary Sch. students aged 16) and Advanced (for Secondary Sch. students aged 17 or 18, or students who have been for 2 yrs. in regular employment with concurrent instruction at senior or advanced part-time courses). The courses must extend over at least 2 yrs., and the senior part-time course should normally extend over 3. The Certifs. and Diplomas relating to Senior and Advanced courses respectively are known as Ordinary and Higher. The Ordinary Certifs. and Diplomas exempt candidates from certain subjects of the Studentship Examination, and the Higher Certifs. and Diplomas from certain subjects of the Associate Membership examn. Special conditions apply to holders of both the Ordinary and Higher awards

# INSTITUTION OF MINING ENGINEERS, see p. 716

## ROYAL AERONAUTICAL SOCIETY

(with which is incorporated The Institution of Aeronautical Engineers)  $\,$ 

Founded 1866. Address—7 Albemarle St., London, W.I.

Membership may be either technical (Students, Associates, Associate Members, Associate Fellows, Members, and Fellows) or non-technical (Companions). Associate Fellowship (A.F.R.Ae.S.) is reserved for those who have certain attainments in the science or practice or teaching of aeronautics or its allied sciences and have passed the Associate Fellowship Examination or an exempting examination; Associate Membership (A.M.I.Ae.E.) is reserved for those who have certain attainments in the

practice of aeronautics or its allied subjects and have passed the Associate Membership Examination or an exempting examination; Membership (M.I.Ae.E.) for those who have attained considerable eminence and are qualified as Associate Members; Fellowship (F.R.Ae.S.) for those who have attained to considerable eminence, and are qualified as Associate Fellows. Annual subsn., I g., 2 gs., 3 gs., and 4 gs., according to class. Entrance for Associates and Companions, I g.; for Associate Fellows and Associate Members, 2 gs.; for Fellows and Members, 3 gs. Library, including large recent acquisitions due to grant from Carnegie U.K. Trust, available to non-members through the medium of the National Central Library, 9 Galen Place, W.C.I. Lectures, regularly in winter. Publication: Journal (monthly).

## THE INSTITUTION OF AUTOMOBILE ENGINEERS

Incorporated 1907. Address—Watergate House, York Buildings, Adelphi, W.C.2. Telegrams—Autinst, Westrand, London.

Qualifications for (1) Ordinary Membership (M.I.A.E.): minimum age, 33; having occupied during a sufficient period a responsible position in connexion with the practice, or otherwise proved thorough knowledge of theory and practice, of Automobile Engineering; (2) Associate Membership (A.M.I.A.E.): min. age, 25; having been trained as Engineer and subsequently employed for at least 2 yrs. in practice and science of A.E. and being actually so engaged, and having proved by examn. or otherwise thorough knowledge of the theory and practice of A.E. Persons suitably qualified may also join as graduates, students, associates, or affiliates. Annual subsn., I g. to 4 gs., according to class. Prizes up to £25 for Papers by Graduates.

# THE INSTITUTION OF CHEMICAL ENGINEERS

Incorporated Dec. 21, 1922. Address—Abbey House, Victoria Street, London, S.W.1. Telegrams—Inchemengs, Sowest, London.

Membership (M.I.Chem.E.) qualifications: minimum age, 32, and satisfactory evidence of good general and scientific education, training, and experience, or of eminence as a Chemical Engineer. Associate Membership (A.M.I.Chem.E.): candidates not below the age of 25 who have had regular training and sufficient experience may qualify by passing a prescribed examn. Alternative qualifications are also provided for. Subscriptions of students, graduates, and corporate members range from ½ g. to 5 gs.

# INSTITUTION OF GAS ENGINEERS

Founded 1863. Royal Charter 1929. Address—28 Grosvenor Gardens, London, S.W.I. Secretary: J. R. W. Alexander, M.A., LL.B. Telegrams—Gasophaner, Sowest, London.

The Education Scheme of the Instn., approved by the Govt. Education Depts. of the British Isles, provides for the award of Certifs. and Diplomas in Gas Engin. and Gas Supply. These are amongst the essential qualifications required for admission to the Instn. Approved Courses in Gas Engin. and Gas Supply are available at many Tech. Colls., whilst provision is made for the examn. of students for various reasons precluded from attending such Colleges.

#### INSTITUTE OF MARINE ENGINEERS

Established 1889. Incorporated 1889. Address—85 The Minories, London, E.C.3. Telegrams—Gradation Ald., London.

Membership or Associate-Membership open to Engineers holding First or Second Class Sea-going Certificates or those holding responsible and qualifying positions and engaged in the science or practice of Engineering or Shipbuilding; Associateship, to juniors so engaged and at least 21 years of age; Graduateship, to those receiving training in such science or practice who have completed 1 yr. of such training; Student Graduateship, to those who have attended Technical classes for 1 yr., are training for such science or practice, and have passed the Institute's examn. The examn. (fee, 2s. 6d.) is held in London and the provinces in April; subjects: Mechanics, Heat and Heat Engines, Machine Constn. and Drawing, Maths., Eng., Elec. Engin., Pract. Engin.

Entrance fee, 10s. to 30s, and annual subsn., 5s. to £1:11:6,

according to grade of membership.

Library (over 3000 vols.) and Reading Room. Lectures monthly (usually on 2nd Tuesday) during winter session. Gold Medal and other

awards for Essay competitions.

Lloyd's Register Scholarships: Three of £100 p.a. tenable for 3 yrs. in a Univ. or Coll. (day classes), open for competition, by examn., to British subjects, aged 18-23, who are Graduates or Associates of the Inst., apprentices or junior engineers not necessarily connected with the Inst., who have served at least 2 yrs. in a commercial eng. workshop and until the time of application have been employed in eng. either ashore, afloat, or at College with a view to entering upon the business of Marine Eng. The examn. is held early in May each year in various centres to suit the residences of candidates in Gt. Britain.

#### INSTITUTION OF NAVAL ARCHITECTS

Founded 1860. Incorporated by Royal Charter, 1910. Address—2 Adam Street, Adelphi Terrace, London, W.C.2. Telegrams—Sinai, Westrand, London.

Principal qualifications for Membership: minimum age, 30; having served apprenticeship in naval arch. or marine eng. and subsequently been engaged in such occupation and having held a post of primary responsibility for 7 yrs. or more. Qualifications for Associate-Member-

ship are similar, but minimum age is 25 and post of primary responsibility need not have been held. Age-limit for Associates, 25; Students, 18-25. Entrance fee and annual subsn., 2 gs. each, except for students, who pay subsn. 15s. p.a. and no entrance fee. Distinctive letters, M.I.N.A., etc.

Scholarships in naval arch. and marine eng.: number unspecified, varying in value from £75 to £150 p.a., offered for competition, open to students and apprentices in firms engaged in shipbuilding industry and Royal dockyards; two for post-grad. research in naval arch. (value £250 p.a. and £150 p.a. respectively) are awarded on recommendation of Univ. authorities (see Appendix XXIII. 12).

Annual meetings, when papers are read and discussed. Summer

meetings at shipbuilding centres at home or abroad.

Library, over 4000 vols., comprising principal works on ship-building, ancient and modern. *Transactions*, issued annually, a permanent record for 70 yrs. of all important developments in ship-building and marine eng.: £3:3s. for current vol. (free to members); £3:3s. to 10s. 6d. for earlier numbers. Membership 2900, including many foreign naval architects of eminence.

# NORTH-EAST COAST INSTITUTION OF ENGINEERS AND SHIPBUILDERS

Founded 1884. Incorporated in 1914 under Companies Acts. *Address*—Bolbec Hall, Newcastle-on-Tyne.

Qualifications for Membership, Associate Membership, etc., are somewhat similar to those prescribed by the Institution of Naval Architects (v. supra). Distinctive letters, M.N.E.C.Inst., etc. All members are, by virtue of their membership, also members of the Cleveland Scientific and Technical Institution, Middlesbrough.

A Scholarship in shipbuilding, marine, mech., or elect. eng., value

£100, is awarded annually on results of an examn. in Sept.

The George Mitchell Harroway Scholarship, value froo p.a. for 3 yrs., is offered triennially. Next award 1933. The scholar must attend a full-time day course in naval architecture or in marine eng. at a recognized Coll. or Tech. School in Gt. Britain with a view to taking a degree in naval arch. or eng. He must also spend some portion of the summer vacation in a shipyard or engineering works. Open only to candidates born in the borough of Blyth, Northumberland, or in the county borough of Middlesbrough, Yorks, of not less than 17 or more than 20 yrs. of age on Oct. I following date of application. Further particulars and forms of application obtainable from the Secretary of the Institution.

The Thomas Fenwick Reed Gold Medal, with prize of books or instru-

ments, is offered annually for competition.

Library, over 5000 books on eng. and shipbuilding. Reading Room with 130 British, foreign, and colonial periodicals. *Transactions*, 8 Pts. since 1884, 5s. each. Ann. vol., 25s. Papers pubd. also in excerpt form, usually 5s. each, with discussion, correspondence, and author's reply.

# INSTITUTION OF ENGINEERS AND SHIPBUILDERS IN SCOTLAND

Founded 1857. Incorporated 1871. Address — 39 Elmbank Crescent, Glasgow, C.2.

Qualifications for Membership, Associateship, etc., are somewhat similar to those prescribed by the Instn. of Naval Architects (v. supra). Distinctive letters, M.I.E.S., etc. The Instn. reciprocates with the N.E. Coast Instn. of Eng. and Shipb., Inst. of Marine Eng. and Liv. Eng. Soc. in regard to the use of premises and attendance at meetings. It publishes Transactions.

# THE INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS

Founded 1873. Incorporated 1890. Address—84 Eccleston Square, London, S.W.1. A Constituent Institution of the Joint Engineering Council.

Qualifications for Membership (M.Inst.M. and Cy.E.): minimum age, 25; holding either a permanent chief appointment as an Engineer or Surveyor under a Municipal Corporation or other such Public Authority, or a permanent appointment as Deputy Engineer or Surveyor or the like; and having passed the examn. of the Instn. or obtained equivalent Degree or Dipl., and in the case of deputies, etc., testimony of professional ability and experience justifying election.

Qualifications for Associate Membership (A.M.Inst.M. and Cy.E.): minimum age, 22; having undergone a recognized course of instruction as Civil Engineer and Surveyor and holding a position as Engineer Asst. or Resident Engineer or the like under a Public Authority; and having passed the examn. of the Instn. or satisfied the Council that he has equivalent engineering qualifications.

A candidate for election as Student (age-limits 18 to 24) must be undergoing or have undergone a regular course of training as an articled pupil to, or hold an approved appointment with, an Engineer or Surveyor to a Public Authority.

Qualifications for Associates: not being Municipal or County Engineer by profession, but engaged in branches of science allied to municipal or county engineering.

Entrance fee for Member,  $1\frac{1}{2}$  gs., and Assoc. Member and Associate, f: 5s:; subsn., 2 gs.,  $1\frac{1}{2}$  gs. Student's subsn., 1 g.

Examinations: April and Oct. Applications receivable up to Nov. I and May I. Three certifs. are awarded: (a) Testamur for general proficiency in work of a local govt. engineer and surveyor; (b) certif. in Town Planning; (c) certif. in County and Highway Eng. for specialized knowledge of road and bridge eng. and highway management and administration.

Qualifications for admission to the examns.: minimum age, 21;

cert. of matricn. of some Univ. in the British Empire or an examn. of similar standard approved by the Council; fees—(a) ros. 6d. per Part (six Parts), (b) or (c)  $1\frac{1}{2}$  or 3 gs.

Inquiries about examns. in England, India, and S. Africa may be

addressed to the Secretary.

Publications: Journal, fortnightly, 2 gs. p.a.; Town Planning Conference 1913, 10s. 6d.; Handbook containing lists of Members, Regns., etc., 5s.; and several others.

#### THE INSTITUTION OF STRUCTURAL ENGINEERS

Founded 1908, incorporated 1909. Address—10 Upper Belgrave Street, London, S.W.I. Telegrams—Coninst, Sloane, London. Branches (8): Lancashire and Cheshire, Western Counties, Yorkshire, Midland Counties, South-Western, S. Wales, Irish, and Scottish.

Studentship qualifications: age 18-21; should have passed matricn or an equivalent examn. and should be bona fide students of Structural Engin. Graduateship: age 21-25, must pass Instn. Examn. or hold exempting qualification. Associate Membership: age 25 and upwards; must pass Instn. Examn. or hold special exempting qualifications and 10 yrs.' practical experience. Associateship: for members of kindred professions, interested in Struct. Engin., who are of equal professional standing to Members. Membership: age 30 and upwards, with minimum of 5 yrs. as Principal or active professional Partner in a Firm carrying out Struct. Engin. work. Distinctive initials of members, etc., M.I.Struct.E., etc.

Examinations held annually in July and Dec., in London, provinces, and overseas at approved centres; entries received up to May 1 and Oct. 1. Graduateship Examn. includes papers on Principles of Statics and Theory of Structures (Elem.), Strength and Elasticity of Materials, and 3 of 5 selective subjects: Chem., Phys., Hydraulics, Geol., Surveying. Associate-Membership Examn. includes papers on Theory and Design of Structures (Advanced), either Reinforced Concrete or Structural Steelwork, and Practical Design.

Scholarships—annual competition for a travelling scholarship, value

£300 and medals.

Publications: The Structural Engineer, monthly, 1s. 2d. post free; Yearbook and List of Members, 5s. 4d. post free; numerous books and reports on technical subjects.

### THE INSTITUTION OF WATER ENGINEERS

Established 1896. Address—Parliament Mansions, Victoria Street, Westminster, London, S.W.I.

Entrance fee, 3 gs., 2 gs., 1½ gs., according to class; annual subsn., Members and Professional Associates, 3 gs., Associate Members, 2 gs. Associates, 1½ gs., Students, 1 guinea. Meetings held in June and Dec.

Publication: Transactions, issued to members only; for sale in certain cases at r guinea.

# SOCIETY OF ENGINEERS (INCORPORATED)

Established 1854; Civil and Mechanical Engineers' Society, founded 1859. Incorporated 1910. *Address*—17 Victoria Street, Westminster, London, S.W.I. *Telegrams*—Windolite, Sowest, London.

Qualifications for membership: Associates (A.S.E.): (i.) men of scientific attainments who, while not professional engineers, are engaged in professions allied to engineering; (ii.) Engineers under 21 yrs. of age; (iii.) Engineering pupils above 18 yrs. of age at time for their application for election. Associate Members (A.M.S.E.)—Regularly trained engineers not less than 21 yrs. of age professionally engaged as such at time of appln. for election. Members (M.S.E.)—Regularly trained engineers not less than 25 yrs. of age and responsibly engaged in the profession for at least 5 yrs. prior to appln. for election. Fellows (F.S.E.)—Engineers not less than 30 yrs. of age with adequate scientific edn. and engin. training who have occupied, and still occupy, responsible positions involving design or execution of important engin. works, and have passed the Society's examns., or approved exempting examns. Women are eligible for membership on same terms as above.

Entrance fee: Fellows, 3 gs. Subsn. (Town, Country, and Foreign), 3 gs., 2½ gs., and 2 gs. respectively; Members, 2½ gs.; Subsn. (Town, Country, and Foreign), 2½ gs., 2 gs., and 1½ gs. respectively; Associate Members and Associates over 21 yrs., entrance fee and subsn. each 1½ gs.; Associates under 21 yrs., entrance fee and subsn. each 10s. 6d.

Ordinary meetings held from Oct. to May (Jan. excepted). Visits to work of engin. interest arranged during vacation.

Publications: Journal, quarterly, 5s., free to members. Transactions, yearly 17s. 6d.

## INSTITUTE OF TRANSPORT

Founded 1919. Incorporated by Royal Charter 1926. Address— 15 Savoy Street, Victoria Embankment, London, W.C.2. Telegrams— Transitute, Rand, London.

Principal objects—to promote, encourage, and co-ordinate the study and advancement of the science and art of transport in all its branches.

Corporate Members (M.Inst.T.) and Associate Members (A.M.Inst.T.) are persons elected as such by the Council, who are not less than 30 and 25 yrs. of age respectively. Non-Corporate Members are Associates (Assoc. Inst. T.); Graduates (Grad. Inst. T.) persons not under 21 yrs.; Students (Stud. Inst. T.) persons not under 17 yrs.

Examinations. Examns. are held annually in London and at such other centres (home and overseas) as the Council may from time to time establish. Unless otherwise determined, they will commence on the last Thursday in April. The Council at its discretion may also hold the examns. in Nov. of any year commencing on the last Thursday.

Applicants for admission to the Graduateship or Assoc. Membership Examn. must complete and submit the form of application to the Sec.

not later than Feb. 1 in respect of examn. in April following and Sept. 1 in respect of examns. which may be held in Nov. following.

Examn. Fees. Graduateship Examn., 2 gs.; Assoc. Membership Examn., 3 gs.

A candidate for Studentship of the Inst. shall be deemed to have passed a Qualifying Examn. who produces evidence of having passed one of the following examns.:

Graduateship of any British Univ. The Matricn. Examn. or Entrance Examn. of any recognized Univ. in the British Empire. The Higher School Certif. Examn., and School Certif. Examn. of any recognized Univ. in the Brit. Empire. The Higher Certif. Examn., and School Certif. Examn. of the Ox. and Camb. Schools Examn. Bd. The Senr. Examn. of the Coll. of Preceptors. The Ox. or Camb. Senior Local (now School Certif.) Examn. The Ox. or Camb. Junior Local Examn. (Hons.). The Central Welsh Bd. (Senior and Hons. Examn.). Leaving Examn. of the Scottish Edn. Dept., Higher Grade. Intermediate Certif. Examn. of the Scottish Edn. Dept. Irish Intermediate Bd. Examn. (Senior Grade). General School Examn. of London Univ. The preliminary examn. of any of the following: Instn. of Civil, Mech., Electrical Engineers; Surveyors' Instn.; Instn. of Municipal and County Engineers; Inst. of Municipal Treasurers and Accountants; Inst. of Chartered Accountants; Society of Incorporated Accountants and Auditors; and the Chartered Inst. of Secretaries.

Entrance Fee. Members and Associates, 3 gs., Assoc. Members, 2 gs., Graduates, 1 g. Annual subsns.: Gt. Brit. or Ireland, amounts as above; outside, 1½ gs., 1 g., and 10s. 6d. respectively. Students, Gt. Brit. or Ireland, 1 g., outside, 10s. 6d. A member of any class elected on and after March 1 in any yr. pays half the ann. subsn.

Meetings (Oct. to April) and Conferences are held, and lectures given.

Local Sections and Overseas Centres are set up on request, at discretion of the Council.

Premiums (gold and silver medals) are awarded, and in addition a Premium of 5 gs., presented by *Modern Transport*, is available for a paper by a Graduate or Student, next in order of merit.

In co-operation with certain of the Univs., and other educational instns., courses of instruction on transport subjects have been provided.

Further particulars on appln. to the Secretary.

## Χ

# THE BAR IN ENGLAND AND WALES

THE right to practise as a Barrister in the Law Courts of England and Wales is restricted to those who have been called to the Bar by one of the Inns of Court-Lincoln's Inn, Middle Temple, Inner Temple, and Gray's Inn. The consolidated Regulations of these Societies (obtainable from the Council of Legal Education, 15 Old Square, Lincoln's Inn, London, W.C.2) provide, inter alia, as follows: Admission of Students. The conditions include: (i.) having passed any examn, held by any Univ. in the British Dominions or any of the States in India, approved by the Council of Legal Educn., which entitles to a degree, or, provided that one of the subjects in which the Student has passed is Latin, one of certain other examinations approved by the Council of Legal Education; (ii.) satisfactory evidence of good character; (iii.) declaration that the candidate is not and does not "directly or indirectly act in the capacity of a Solicitor, Attorney-at-Law . . . Professional Accountant, Actuary, Land-Agent, Surveyor . . . " or " in any capacity similar to any of those . . . otherwise than as . . . . The Schedule of approved Prelim. examns, includes those of the standing of Oxford Responsions, Cambridge Previous, and London Matriculation. The Council may add others, and the Masters of the Bench of the Inn of Court concerned may, in special cases, relax or dispense with this requirement, and solicitors admitted in England are exempted from it.

Keeping Terms. This is done by eating dinners 6 days in each of 12 terms (members of Univs. of the U.K. 3 days). There are 4 terms

in each year.

Education and Examination. Systematic instruction is provided under the supervision and direction of the Council of Legal Education in Roman, International, Constitutional, and English Law, Jurisprudence, Legal History, and Equity. Reading in the chambers of a Barrister or Pleader for the purpose of studying the practice of Law is recommended, but not compulsory. Three examns for Call to the Bar are held each year. Candidates must satisfy the examiners in each of the sections: (1) Roman Law, (2) Constitutional Law (English and Colonial) and Legal History, (3) Criminal Law, (4) Elements of the Law of Contract and of the Law of Tort, (5) Common Law, (6) Equity, (7) Law of Evidence and Civil Procedure, (8) General Paper on 5, 6, and 7, (9) Real Property and Conveyancing or Hindu and Mohammedan Law or Roman-Dutch Law. A student who has passed an examination in Roman Law, forming part of a qualifying examn. for a Univ. degree, may be excused the examn. in Section 1. Sections 1 to 4 (constituting Part I.) may be taken separately (fee, ½ g. each); 5 to 9 (the Final examn.) must be taken together (fee, 2 gs.) after having passed I to 4 and, ordinarily, after having kept at least 6 terms.

The successful students are classified and the names of those in

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Classes I. and II. of the Final Examination Pass List are arranged in order of merit. A Certif. of Honour is granted to those in Class I. at the Final examn. Prizes of £50 each may be awarded for the best students (age not over 25) in Sections (2) and (3), and a Studentship of 100 gs. p.a. tenable for 3 yrs. to the best student (age not over 25) at the Final examination. The Inn to which a student who has obtained a Studentship or Certificate of Honour belongs may, if desired, dispense with any terms, not exceeding 2, that may remain to be kept by him.

Calls to the Bar. Minimum age, 21. In special circumstances the Masters of the Bench may dispense with the keeping of not more than 2 of the 12 terms ordinarily required to be kept by a student before he is called, and special concessions in regard to the keeping of terms or examns., etc., are allowed to Scottish Advocates, Irish Barristers, members of the Bar of New South Wales, Ceylon, the Cape Province of South Africa, New Zealand, Vakils or Advocates who have been on the Roll of Vakils or Advocates of a High Court in India for not less than 3 yrs., certain Civil Servants exercising judicial functions abroad, and to persons who, prior to admission as students, have practised as Solicitors for 5 yrs. subsequent to admission as a solicitor in England.

Fees. On admission: application, I g.; stamp duty, £25; lecture fee, 12 gs.; admission fees, £20 or £21. On Call: stamp duty, £50; composition for annual dues, £12; call fees, £38 (Gray's), £40 (Lincoln's), £50 (Middle or Inner Temple).

## SOLICITORS IN ENGLAND AND WALES

Examinations are held by the LAW Society, Chancery Lane, London, W.C.2. All persons, except some Colonial Solicitors, are subject to Final examn. at or near the conclusion of service under Articles before they can be admitted as Solicitors. Subjects of Foreign States cannot be admitted. English Barristers of 5 yrs.' standing are not required to enter into Articles, but may be admitted after passing the Final examn. Before entering into Articles of Clerkship (under the Solrs. Act, 1877) with a view to admission as Solicitors it is necessary, except for persons exempted, to pass a Preliminary examn. (fee, £4) held in London and several provincial towns in Feb., July, and Oct., in English, Elem. Maths., Geog. of Europe, and Hist. of England, Latin, and one or (if Algebra and Elem. Geom. are not taken) two of the following-Latin translation, Greek, French, German, Spanish, Italian. Exemption is allowed to graduates in Arts or Laws and persons who have passed matrical or other corresponding examples, of any Univ. of Great Britain or Ireland or examns. exempting therefrom; to Utter Barristers in England; and to persons who have passed Oxford Responsions or Cambridge Previous Examn. or any examn. exempting therefrom, or, subject to provisos, approved School Certificate or Higher Certificate examns., or certain other examns.

Service under Articles (stamp duty, £80) is normally for 5 yrs. This may be reduced to 3 yrs. for graduates in Arts or Laws or Sc. of

any Univ. of the U.K., English Barristers, of less than 5 yrs.' standing, or for members of the Faculty of Advocates, Writers to the Signet and Solrs. in the Supreme Courts of Scotland, or Procurators before any of the Sheriff Courts of Scotland.

An Intermediate examn. (fee, £6), which may be taken after completing 12 months' service, is held in March, June, and Nov. Exemption from the Legal portion (but not from the Trust Accounts and Bookkeeping portion) is given to those who (i.) before or after entering into Articles have passed the examn. for the B.C.L. or LL.B. at any of the Univs. of England (except Bristol) and Wales or at the Univ. of Dublin or the Queen's Univ. of Belfast; or (ii.) before entering into Articles have taken Hons. in the Final Honour School of Jurispr. at Oxford or in the Law Tripos at Cambridge.

The *Final* examn. (fee, 10 gs.) is held in March, June, and Nov. Prints of the Questions set at this and at the Preliminary and Interm. are obtainable from the Law Society.

The Solicitors Act, 1922. Section 2 provides that a person articled to a solicitor after Dec. 31, 1922, shall not be admitted to the Final Examn. unless he satisfies the Law Society that he has, during a period of 1 yr., complied with the requirements of the Society as to attendance at a Law School provided or approved by the Society. This does not apply to any person who (1) has taken a degree at any Univ. in the U.K., after passing a Final Examn. in law at such Univ.; or (2) applies to be admitted to the Law Society's Final Examn. after satisfying the requirements of Sect. 4 of the Solrs. Act, 1860. Any person may be wholly or partially exempted from attendance at a Law School if he can satisfy the Law Society that such attendance is for geographical or other reasons impracticable.

Provided and Approved Schools. The Society's Law School in London; the Univs. of Birmingham (in conjunction with the Birmingham Board of Legal Studies), Bristol, Cambridge, Durham (Armstrong College), Leeds, Liverpool (in conjunction with the Liverpool Board of Legal Studies), London, Manchester, Oxford, Sheffield, Wales (Univ. Colleges, Aberystwyth, Bangor, Cardiff, Swansea), Univ. College, Exeter, Univ. College, Southampton, East Midland Law School (Univ. Colleges of Nottingham and Leicester), Univ. College, Hull, and the

Sussex Board of Legal Studies.

#### SCOTLAND

#### ADVOCATES

Full information as to admission to the Faculty of Advocates, Scotland, can be obtained on application to the Clerk of Intrants, Advocates' Library, Edinburgh.

The Faculty Examns. proceed upon a remit from the Court, following upon a Petition presented by the Intrant. In the event of the candidate not possessing a degree in Arts, he must either satisfy the Dean and his Council that he has passed an examn. evidencing the same amount of

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scholarship as that afforded by the degree of Master of Arts of a Scottish Univ., or pass the Faculty examn. in General Scholarship. A knowledge of Scots Law and Conveyancing is essential, and the candidate must have attended classes in these subjects in a Scottish Univ. The other legal subjects include Civil (Roman) Law, Philosophy of Law and International Law, Constitutional Law and History, and Medical Jurisprudence. The degree of LL.B. of a Scottish Univ., provided it has been obtained after examn. in all the prescribed subjects, exempts from examn. in General Scholarship and Law.

The fees payable on admission vary according to the age of the Intrant and other circumstances.

#### LAW AGENTS

The generic name for solicitors in Scotland is "Law Agent," a term synonymous with "Solicitor" in England. The title "Procurator" is also sometimes used. In Edinburgh, where the Court of Session sits, the term "Advocate" is equivalent to "Barrister," though in other parts of Scotland the Solicitor or Law Agent may be referred to by that title. In Edinburgh, again, Law Agents or Solicitors may be members of the Society of Writers to the Signet or of the Society of Solicitors in the Supreme Courts. The former generally use the designation "W.S.," the latter "S.S.C.," after their names, but any solicitor can practise without being a member of either Society provided that he has passed as a "Law Agent."

For information regarding the Scottish Law Agents Society, application should be made to the Secretary, Scottish Law Agents Society, Dunblane.

#### WRITERS TO HIS MAJESTY'S SIGNET

The principal class of solicitors in Scotland are called Writers to the Signet, from their having been originally clerks in the office of the King's Secretary. The method of entering the Society of Writers to His Majesty's Signet is by way of Indenture, the period being either 5 or 3 yrs. according to the age and qualifications of the applicant. The fees payable on entering into Indenture are £345: is., together with other minor charges. Two examns, have to be passed, the first directed both to the theory and to the practice of Law. Upon expiry of the term of apprenticeship and after discharge of the Indenture the Intrant has to pass a second examn. in legal subjects. Applicants who hold degrees in Law of any Scottish University are exempted from all examinations provided that the Law of Scotland, Conveyancing, and Civil and Criminal Procedure are included in the subjects in which he has passed for the Degree. The fees payable by Intrants for admission amount to £137: 17s. For further information application should be made to the Sub-Keeper and Clerk of the Society of Writers to His Majesty's Signet, 15 York Place, Edinburgh.

#### SOLICITORS

Before apprenticeship, an entrance examn. in General Knowledge must be passed; or the applicant must have been exempted therefrom

by reason of holding qualifications such as those that would admit him to a Univ. He must also pass an examn. in Book-keeping and Accounting. The examn. in Law is divided into two parts: the first being taken not sooner than 2 yrs. before the date of the expiry of the candidate's Indenture. The second examn. in Law can be taken only after the applicant has Petitioned for admission as a Law Agent and his Petition has been remitted by the Court to the Examiners. The subjects of this examn. are Conveyancing, the Law of Trusts and Succession, and Court of Session and Sheriff Practice. Apprenticeship must be for 5 yrs., but under certain conditions it is reduced to 3 yrs. The duty for admission to practise before a Sheriff Court is £55, and before the Court of Session £85. Various other fees have to be paid in the course of apprenticeship and for the examns.

# THE BAR IN NORTHERN IRELAND

Admission to the Bar in N. Ireland is controlled by the Hon. Society of the Inn of Court of Northern Ireland, Law Courts, Belfast. The course covers a period of 3 yrs. commencing with Michaelmas Term. A student must have passed a Univ. Matricn. Examn. (incl. Latin). He must keep 3 Terms Commons in one of the 4 Inns of Court in London. Except where expressly provided otherwise he shall attend each yr. a continuous and complete course of lectures at the Queen's Univ., Belfast, and shall pass the examns. connected therewith. In his 2nd or 3rd yr. he may attend the lectures of the Profs. of the Inns of Court in London instead of one of the yrs. at the Queen's Univ. A student of an approved Univ. in Gt. Britain and Ireland may be given credit for his first yr.'s legal education by attending a complete course for I yr. in the Univ. Law School. Before presenting his Memorial for Call he must pass Pt. II. (The Final Examn.) for Call to the Bar held under the Council of Legal Education in England. No student shall be called to the Bar of N. Ireland unless he shall possess an Arts degree or some other Univ. degree which, in the opinion of the Benchers, is equivalent thereto.

Fees. Before admission as student, I guinea for Form of Memorial. Before presentation of Mem., Stamp duty £25, and fee of £25 to the Inn. Univ. Lectures, 15 gs. p.a. Before admission to degree of Barr.-at-Law,

Memorial stamp duty £50, fee to Inn £50.

#### SOLICITORS IN THE IRISH FREE STATE

With the exception of candidates who have passed certain Univ. and school examns., all intending apprentices are required to pass a prelim. examn. (held in April and Oct. in each yr.) before being bound under indentures, the course for which is published I yr. in advance. Candidates, who must have attained the age of 16, must lodge with the Secretary of the Society, at least 3 wks. before the appointed day of the examn., a notice, petition, and memorial, together with baptismal

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certif. and fee of £10. Intending apprentices who were under the age of 15 on Oct. 1, 1929, must obtain a certif. from the Inc. Law Society of Ireland that he or she has passed a first examn. in Irish. The period of service under indentures varies from 3 to 5 yrs., the reduction being made for graduates of certain Univs.

Apprentices other than barristers in Ireland must attend lectures by professors of the Society in Common Law, Equity, Real Property Law,

and Conveyancing. Fees, 6 gs.

The Intermediate Examn., held in June and Oct., must be taken by all apprentices other than graduates in Laws of Irish and certain British Univs.

The Final Examn., held in April and Oct., fee £10, must be taken by all candidates before admission as a solicitor. Admission is not granted to candidates under 21 yrs. of age. Fees, £25 stamp duty, and 5 gs. payable to the Society.

Further particulars from the Secretary, Incorporated Law Society,

Solicitors' Buildings, Four Courts, Dublin, N.W.8.

## XI

# MEDICAL AND DENTAL QUALIFICATIONS AND STUDIES

#### A. MEDICAL QUALIFICATIONS

Address of the Registrar, General Medical Council—44 Hallam St., Portland Place, London, W.I. Telegrams—Genmedicum, Eusroad, London. Addresses of Registrars of Branch Councils—12 Queen St., Edinburgh; 35 Dawson St., Dublin.

No person is recognized by law as a duly qualified Medical Practitioner in Great Britain or Ireland whose qualification is not registered in the books of the General Medical Council. Below are lists of the qualifications so registrable—obtainable (a) in Great Britain and Ireland, (b) in British Possessions overseas, (c) in foreign countries. The document presented in evidence of any of these must show that the possessor has passed a Qualifying examn. in Medicine, Surgery, and Midwifery. For registration in the Colonial or Foreign list it is essential that the qualification be first registered in the Province, State, etc., in which it was obtained.

Position of Doctors with Irish Qualifications. Persons who obtain recognized qualifications in the Irish Free State can register there, and should do so if they desire to practise in that State. They are also entitled to registration on the Medical Register if they desire to practise elsewhere than in the Free State.

Position of Doctors with British Qualifications in Irish Free State. Persons on the British Medical Register can register and practise in the Irish Free State on payment of the requisite fee of £5 plus 1s. for stamp.

(a)

Royal College of Physicians, London-F., M., L., R.C.P. Lond.

Royal College of Surgeons of England—F., M., R.C.S. Eng.

Royal College of Physicians of Edinburgh—F., M., L., R.C.P. Edin.

Royal College of Surgeons of Edinburgh—F., L., R.C.S. Edin.

Royal Faculty of Physicians and Surgeons of Glasgow—F., L., R.F.P.S. Glasg.

Royal College of Physicians of Ireland—F., M., L., L.M., R.C.P. Irel. Royal College of Surgeons in Ireland—F., L., L.M., R.C.S. Irel.

Apothecaries' Soc. of London—L.M.S.S.A. Lond.

Apothecaries' Hall, Dublin-L.A.H. Dub.

Each Univ. in Great Britain or Ireland—M.D. (Ox., D.M.), M.B. (Ox., B.M.), Ch.B. or B.Ch. or B.S. (Camb. B.Chir.), Ch.M. or M.Ch. or M.S. or C.M. (Camb. M.Chir.) or Ch.M. (Orth.) L'pool; Dub.: L.Med., L.Ch.; M.A.O. (Dub., N.U.I., Q.U. Belf.).

Registrable Diplomas or Certificates for proficiency in Sanitary Science, Public Health, or State Medicine, which may be added to qualifications already registered, but do not admit primarily to the Register: D.P.H. (R.C.P.S. Engl., R.C.P.S. Edin., and R.F.P.S. Glas., R.C.P.S. Irel., and each of the Univs. of Great Britain and Ireland, except London).

B.Sc. (P.H.) Birm.

B.Hy., D.Hy. Durh.

M.D. (Br. 5, S.M.) Lond.

M.H. L'pool.

B.Sc. (P.H.), D.Sc. (P.H.) Edin.; B.Sc. (P.H.), D.Sc. (P.H.) Glas.

The period between the obtaining of an original qualification and

a Diploma is not less than 2 years.

Under the Public Health Acts no appointment as Med. Officer of Health may be made in any county, district, or combination of districts of a population of 50,000 or upwards unless he is registered as the holder of a Diploma in San. Sc., Public Health, or State Med.

(b)

Australia. M.B., M.D. Syd., Adel., or Melb.; Ch.M., B.S. Syd.; B.S., M.S. Adel.; B.S. Melb.

Canada. M.D. Alberta; M.D. C.M. Dal.; M.D., or M.D. C.M. Man.; L.M.S. Nova Scotia Provl. Med. Board, or Prince Edward Island Med. Council.

M.C.P. & S. Alta., or Man.

Ceylon. L.M.S. Ceylon Med. Coll.

Hong-Kong. M.B., B.S., M.D., M.S. Hong-Kong.

India. The following qualifications granted before Feb. 24, 1930:
M.B., B.S. All.

L.M.S., M.B., B.S., M.D., M.S. Bom.

L.M.S., M.B., M.D., M.S., M.O. Calc. (if dated prior to Nov. 30, 1924, or between May 12, 1928, and Feb. 24, 1930).

M.B., C.M., M.B., B.S., M.D. Mad.

L.M.S., M.B., M.D., M.S. Panj.

M.B., B.S. Lucknow.

All Indian qualifications granted since Feb. 24, 1930, have ceased to be registrable.

Malta. M.D. Malta.

Newfoundland. L.M.S. Nfld. Med. Board.

New Zealand. M.B., Ch.B., M.D. N.Z.

South Africa.

M.B., Ch.B. Cape Town.

M.B., Ch.B., M.D., Ch.M. S. Africa.

M.B., B.Ch. U. Witwatersrand.

Straits Settlements. L.M.S. Singapore Med. Coll.

(c)

Degrees of (i.) Doctor of Med. and Surg. of all the Royal Italian Univs.; (ii.) Bachelor of Med. and Doctor of Med. of the Imperial Univs. of Japan; and Bachelor of Med. of any Govt. or Prefectural

Special Med. Coll. or of a private special Med. Coll. designated by a Minister of Educn. of the Empire of Japan.

#### B. REGISTRATION OF MEDICAL STUDENTS

The General Medical Council recommend that every medical student at the commencement of his studies should be registered. A memorandum on the procedure to be adopted, with a list of Hospital Fees, etc., may be obtained from the Registrar, 44 Hallam St., London, W.I., price 1s. Students desiring to be registered should apply in the prescribed form, obtainable from any of the Registrars (v. supra), submitting evidence of having—(a) attained the age of 17; (b) passed a Preliminary examn. in General Education recognized by the Council; (c) passed also an examn. in Elementary Physics and Elementary Chemistry conducted or recognized by one of the Licensing Bodies; (d) commenced Medical study at an approved Univ. or Medical School.

As regards (b) the Council recognizes no examn, which is of standard lower than that of Univ. Matricn. examns. in the faculties of Arts and Pure Science, and requires in the case of School Certificates which do not exempt from Matricn. that the examn. certificate shall bear evidence that the candidate has passed with credit at not more than two sittings in English, Elem. Maths., a language other than English, and an additional subject or subjects as required by the regns. of the particular examn., to be chosen from the subjoined list, viz. Hist., Geog., Physical Sc., Nat. Sc., Botany, Latin, Greek, Hebrew, French, German, or other language accepted by the Univ. for the purpose. Applicants from recognized Dominion or Colonial Univs. must produce evidence that they have passed the complete Matricn. examn. for the faculty of Arts or of Science (Pure) of the Univ. or Coll. from which they come, or an examn. accepted as equivalent thereto, and that the examn. passed is accepted by one of the Univs. of Gt. Britain or Ireland for similar purposes. cants from recognized Indian Univs. must produce evidence that they have passed the Matrica. examn. of the Univ. from which they come, or an examn. recognized as equivalent thereto, and, in addition, the Prelim. Sci. or Interm. examn. in Arts or Sc. of their own Univ. in the four subjects specified above. Applicants from Foreign Univs. should submit their credentials to the Registrar.

As regards (c), this requirement is not dispensed with in cases where Physics and Chemistry of a Matrica. standard formed part of the (b) examn., but an applicant from recognized Dominion or Colonial Univs. or Colls. is permitted to substitute for it a certificate that an examn. in Physics and Chem. (and, in addition, Biology, v. infra) equivalent in standard to the First Professional examn. in these subjects has been passed by the student. Similarly, in the case of an applicant from one of the recognized Indian Univs. the Prelim. Scientific or Intermediate examn. in Arts or Sc. of his own Univ. will suffice if these subjects are included in his Pass certificate in addition to the four subjects required under (b), supra.

As regards (d), institutions in which Medical Study may be commenced include all the Univs. and other Bodies throughout the Empire of which the qualifications (v. supra) have been recognized as entitling to registration in the U.K.

A student who has diligently attended an approved course of instruction in *Elementary Biology* at a Secondary school or other teaching institution recognized by a Licensing Body may be admitted to the Professional examn. in this subject immediately after his registration as a student.

Not all the licensing bodies require students to be registered by the General Medical Council.

#### C. DENTAL QUALIFICATIONS

Under the Dentists Act, 1921, no person who is unregistered can practise dentistry without rendering himself liable to prosecution.

The Dental Board of the United Kingdom was constituted by the Dentists Act, 1921, and is charged with the duty of dental registration. The address of the Registrar is 44 Hallam St., London, W.I. Telegrams—Dentiboard, Eusroad, London.

The following lists show the registrable qualifications obtainable (a) in Great Britain and Ireland, (b) in British Possessions overseas.

(a)

Royal College of Surgeons of England-L.D.S., R.C.S. Eng.

Royal College of Surgeons of Edinburgh—H.D.D., L.D.S., R.C.S. Edin.

Royal Faculty of Physicians and Surgeons of Glasgow—H.D.D., L.D.S., R.F.P.S. Glas.

Royal College of Surgeons in Ireland-L.D.S., R.C.S. Irel.

Univ. of Birmingham-M.D.S., B.D.S., L.D.S. U. Birm.

Univ. of Bristol-M.D.S., B.D.S., L.D.S. U. Brist.

Univ. of Durham—M.D.S., B.D.S., L.D.S. U. Durh.

Univ. of Leeds—M.Ch.D., B.Ch.D., L.D.S. U. Leeds.

Univ. of Liverpool-M.D.S., B.D.S., L.D.S. U. L'pool.

Univ. of London—B.D.S., M.S. (Dent.) U. Lond.

Victoria University of Manchester-M.D.S., B.D.S., L.D.S. V.U. Manc.

Univ. of Sheffield—M.D.S., B.D.S., L.D.S. U. Sheff.

Univ. of St. Andrews-L.D.S. U. St. And.

Univ. of Dublin-M.D.Sc., B.D.Sc., L.D.Sc. U. Dubl.

National Univ. of Ireland-M.D.S., B.D.S. N.U. Irel.

Queen's Univ. of Belfast-M.D.S., B.D.S., L.D.S. Q.U. Belf.

(b)

Victoria, Australia-L.D.S. Vict.

Univ. of New Zealand-B.D.S. U. N. Zealand.

Univ. of Adelaide-B.D.S., D.D.Sc., U. Adelaide.†

Univ. of Sydney-B.D.S. U. Sydney.

<sup>†</sup> Admissible only in the cases of persons who have complied with the Regulations which came into force in 1928.

Univ. of Melbourne—B.D.Sc., D.D.Sc. U. Melb. Univ. of Witwatersrand, B.D.S., D.D.S. U. Witwatersrand.

#### D. REGISTRATION OF DENTAL STUDENTS

I. Registration is carried on at the Office of the General Medical Council in London in the same manner as that of Med. students, and is subject to the same regns. as regards age and Prelim. examns., but professional study may commence by pupilage with a Registered Dental Practitioner.

II. Candidates for a Diploma in Dental Surgery should produce certificates of having been engaged in professional studies for at least 4 years, including 3 years at least at a Dental school or schools recognized for professional study by one of the Licensing Bodies, and of having received for not less than 24 calendar months, or for 2000 hours, practical instruction in Dental Mechanics.

III. Two years' or more bona-fide apprenticeship with a Registered Dental Practitioner, after being registered as a Dental student, may be

counted as I of the 4 yrs. of professional study.

IV. The necessary instruction in Dental Mechanics, or any part of it, may be taken by the Dental student either before or after his registration as a student. When he can show evidence of at least 2 yrs.' regular pupilage in Dental Mechanics to a Registered Practitioner, prior to passing the prescribed Prelim. and Sci. examns., he may be allowed to antedate by not more than I yr. the passing of these examns.

V. It is recommended that instruction in Dental Mechanics be taken at a recognized Dental Hospital or School. If any part of such instruction be taken by the candidate as a pupil with a Registered Dental Practitioner, the time required to be devoted to it will be at least twice the time required for the corresponding instruction taken

at a Dental School.

Schools at which Dental Study may be commenced: Birmingham D. Hospl; Bristol, Royal Infirmary, Genl. Hospl.; Dublin, D. Hospl. of Ireland; Dundee D. Hospl; Edinburgh D. Hospl.; Glasgow D. Hospl.; Leeds D. Hospl.; Liverpool D. Hospl.; London, Guy's Hospl. D. School, London Hospl. D. School, Univ. Coll. Hospl. D. School, Royal D. Hospl.; Manchester D. Hospl.; Newcastle-upon-Tyne D. Hospl.; Sheffield Royal Hospl.; Roy. Coll. of Surg. in Ireland; D. Department of any Univ. of the U.K.

Not all the licensing bodies require students to be registered by the

General Medical Council.

#### E. RECIPROCAL RECOGNITION

All the States, Presidencies, Provinces, and Colonies in which the registrable medical qualifications specified under A (b), (c) are granted allow practitioners with qualifications registered in the U.K. to register without further examn. There are other Colonies, e.g. Tasmania, which recognize British qualifications, but in which at present no qualifications are granted.

[A Report (8th edition pubd. in 1930) as to the conditions under which Med. and Dent. practitioners registered or legally qualified in their own country may practise abroad is obtainable from the Council Office, price 2s. 6d. (post free U.K. 2s. 9d., elsewhere in the Empire 3s., outside 3s. 3d.). It contains, among other matters, the designations and addresses of the officials to whom application should be made for forms and further information.]

#### F. POST-GRADUATE MEDICAL STUDIES

In London, in addition to the General Hospital Medical Schools which provide to a limited extent for qualified practitioners, there are the West London Post-Graduate College at the West London Hospital, Hammersmith, with a staff of 37 regular lectrs. and demrs., the North-East London Post-Graduate College at the Prince of Wales' Hospital, Tottenham, and the London School of Clinical Medicine at the Seamen's Hospital, Greenwich, as well as certain special hospitals where excellent arrangements are made for post-graduate work in particular subjects. The Fellowship of Medicine and Post-Graduate Medical Assn. (I Wimpole St., London, W.I), formed in 1918, promotes and advertises the provision of facilities for post-grad. med. study in London. In co-operation with 50 London general and special hospitals, post-grad, courses in all the special depts. of med. science are arranged, as well as short intensive courses at regular intervals during the year, including special evening courses for the M.R.C.P. and F.R.C.S. (Final) examns. Information is given on post-grad. study in Gt. Britain and elsewhere. Regarding facilities for special research, v. infra.

Post-graduate courses are also provided elsewhere, notably at Manchester, Edinburgh, and Glasgow.

# ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND

Address of the Secy., Examining Board in England, 8-11 Queen Sq., London, W.C.I. Applications for admission to the Board's sxamms. should reach the Secy. at least 21 days beforehand. Agency for the sale of Books of Questions set in past years (9d. each, post free 1od.; for 1928 and subsequent years, 1s., post free 1s. 1d.)—Taylor & Francis, Red Lion Court, Fleet St., London, E.C.4.

Examns. for the Diplomas of LICENCE OF THE R.C.P. of London and MEMBER OF THE R.C.S. of England (L.R.C.P., M.R.C.S.) are held ordinarily in Jan., April, July, and Oct. Candidates must have passed a Prelim. examn. in genl. edn. recognized by the Board, and must have passed, before commencing the 5 years' curriculum of professional study, Part I. of the Pre-Medical examn. in Chemistry and Physics conducted or recognized by the Board. Part II. of the Pre-Medical Examn. (Elementary Biol.) must be passed not later than the completion of the second term of Professional Study. Before admission to the Pro-

fessional examns. (known as the First and Final) they are required to produce certificates of having pursued the prescribed courses of study and practice. The First Professional examn. (fee, 10 gs.) comprises: Section I., (a) Anat., including Histol. and Embryol., (b) Physiol., including Bio-Chem.; Section II., Pharmacol. and Materia Medica. A candidate who has passed an examn. in the subjects of Section I. or of either part of Section I. and of Section II. in the examn. for the degree in Medicine conducted at a Univ. recognized by the Board will be exempted from further examn. in such subject or subjects. The subjects of the Final Professional Examn. are: Section I. (fee, 4 gs.), (a) Pathol., including Morbid Anat., Morbid Histol., Clinical Path., and Bacteriol.; Section II.—Part I. (fee, 10 gs.), Medicine, including Med. Anatomy, Forensic Med., and Public Health; Part II. (fee, 10 gs.), Surgery, including Surg. Anat. and the use of Surg. Appliances; Part III. (fee, 6 gs.), Midwifery and Gynæcol.

Students of recognized Univs. in England, Scotland, and Ireland, who have passed examns. for a degree in Medicine at their Univs. in the subjects of the First Professional Examn., may enter for a Part, or Parts, of the Final at the expiration of 24 months after passing in Anat. and Physiol., but cannot complete until 57 months of professional study, including 33 months clinical work, have been completed after the date of passing in Anat. and Physiol. on production of the required certificates.

Members of certain recognized Indian, Dominion, Colonial, and Foreign Univs. are admissible to the examns. under special conditions, particulars of which are set out in the Regns. of the Board. The Board also grants Diplomas in Public Health, in Psychological Med., in Ophthalmic Med. and Surg., in Tropical Med. and Hyg., in Laryngol. and Otol. and in Gynæcol. and Obstetrics. Candidates must hold a Medical qualification registrable in the U.K., or be Graduates in Medicine of a recognized Indian, a Dominion, Colonial, or Foreign Univ.

Most of the Universities in the U.K., except Oxford and Camb., admit students who have not matriculated but have satisfied the Con-

joint Board requirements to study for the L.R.C.P., M.R.C.S.

For admission to the MEMBERSHIP OF THE R.C.P. (fee, 40 gs., less Licence fee, if any, already paid) the minimum age is 23, and a candidate must satisfy the Censors Board as to his moral character and conduct and pass an examn. of such nature and extent as may be determined by the Board. If he has not passed the examns. required for the licence, he must have obtained a Univ. degree of Doctor or Bachelor of Med. which is registrable by the General Medical Council of the United Kingdom. A candidate who has attained the age of 30, and can produce testimonials satisfactory to the Board, may submit published work done by himself in any branch of Medical Science or in General Literature, and if the Censors Board decide that such work is of sufficient merit to excuse the candidate the whole or part of the usual Examn. the Board may modify the Examn. as they think fit.

Fellows are elected annually from the ranks of the Members of at least 4 yrs. standing. (For particulars of the Membership of the R.C.P. application must be made direct to the Secretary, Pall Mall East,

London, S.W.I.)

Examns. for the Fellowship of the R.C.S. are held twice yearly -the 1st Prof. in June and Dec., and the 2nd Prof. in May and Nov. Fees, first examn., 8 gs., 2nd, 12 gs., admission to Fellowship (minimum age, 25), 10 gs., for those who are M.R.C.S. Eng. and 30 gs. for those who are not M.R.C.S. The First examn. (in Anat. and Physiol.) is open to M.R.C.S. Eng., and, on production of certain certificates involving work extending over 60 weeks, to (a) candidates who have passed the First examn., Pt. I., for the L.R.C.P. Lond. and M.R.C.S. Eng., and (b) members of Univs. recognized under the Regns. of the Board. Second examn. (in Surgery, including Surg., Anat., and Path.) is open, provided they have passed the First, to (a) M.R.C.S. Eng. who have been engaged not less than 6 yrs. in the study or study and practice of the profession, and (b) persons possessing the registrable Surg. and Med. degrees of the under-mentioned Univs., who have been engaged after obtaining such degrees in the study or study and practice of the profession for 4 yrs., including I yr. spent in attendance upon the Surg. Practice of a recognized Hospl. or Infirmary: the Univs. of the U.K., Alberta, Dalhousie, Laval, McGill, Manitoba, Montreal, Queen's (Kingston), Toronto, Western (Ont.), Adelaide, Melbourne, Sydney, N.Z., Bombay, Calcutta, Lucknow, Madras, Panjab, Allahabad, Hong-Kong, Malta, Cape Town, South Africa, Witwatersrand, Royal Italian Univs. and Imperial Univ. of Japan.

All the above examns. and Diplomas are open to Women, subject to the provisions of the Medical Act, 1876, and Bye-laws of the Colleges. (For particulars concerning the Fellowship of the R.C.S. apply to The Director of Examinations, 8/11 Queen Square, London, W.C.1.)

# ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND ROYAL FACULTY OF PHYSICIANS AND SUR-GEONS OF GLASGOW

Joint examns, open alike to men and women, are held in Edinburgh (usually in Oct., Jan., and July) and in Glasgow (usually in March-April) for the DIPLOMAS IN MEDICINE, SURGERY, AND MIDWIFERY of these three bodies. Applications for admission should reach the Inspector—in Edinburgh, David Thomson, 49 George Square; in Glasgow, W. Hurst, 242 St. Vincent St.—at least one week before.

Examns. for the DIPLOMA IN PUBLIC HEALTH (fee, 12 gs. or for each Part, 6 gs.) are held early in Oct. in Edinburgh and early in March in Glasgow.

The R.C.P. Edin. may admit to examn. for its single qualification—LICENCE—any candidate on the Medical Register. Fee, 15 gs. Examns. held every month, except Sept. and Oct. Admission to Membership (minimum age, 24) is by election. Candidates must hold a Licence of a British or Irish Coll. of Phys. or Degree in Med. of a Univ. approved by the Council, and pass the prescribed examn. unless exempted by the Council from the whole or part of it in consideration of

work in any sphere of Med. adjudged to be of high distinction. Fee, 35 gs., or, if a L.R.C.P. Edin., 20 gs. A member of 3 yrs.' standing may be elected Fellow. Fee, 38 gs., and stamp duty, 25 gs. The College

has a Library of 100,000 vols. and Research Laboratory.

For admission to the Fellowship of the R.C.S. Edin. candidates must pass an examn. (fee, £10, plus £40 by those who pass. £10 is remitted to Licentiates, in consideration of the fees already paid, or for L.R.C.S. Edin., £35) in: (a) Principles and Practice of Surgery, including Surg. Anat.; (b) Clinical S.; (c) one of the following—including Clinical or practical as well as written and oral tests—S. Path. and Operative S.; Ophth. S.; Aural, Nasal, and Laryng. S.; Obst. S.; Gyn.; Adv. Anat.; Dental S. Qualifications for admission to the examn. (which is now open to women): minimum age, 25 yrs.; 2 yrs.' study and practice of the profession after obtaining one of the following, or other approved qualifications in S.: those of R.C.S. Eng., R.C.S.I., R.F.P.S. Glas.; Surgical degrees of the Univs. of the U.K. and Canada, Adelaide, Melb., Syd., N.Z.; L.M.S.S.A. Lond., and L.A.H. Dub. registered under the Med. Act, 1886, and such foreign qualifications as may be approved by the President's Council.

Candidates may not appear more than 3 times at the examns.

At the final consideration of the candidate's petition for admission

to the Fellowship election is determined by ballot.

Examns. for the LICENCE OF THE R.F.P.S. Glasgow can be arranged at any time, except August. Fee, 15 gs. Qualifications for admission: Licence of a Coll. of Physicians of the Ü.K., Dominions, or Colonies, or of the Soc. of Apothecaries of London or Apothecaries' Hall, Dublin, conferred after passing their qualifying examns.; Degree in Med. of a Univ. of the British Empire.

Examns. for the Fellowship of the R.F.P.S. Glasgow are held in Jan., April, July, and Oct. 14 days' notice required. Admission to the Fellowship (fee, £50, or for L.R.F.P.S., £40) is by examn. and subsequent election by ballot, or by election in virtue of high distinction in Med. Sc. or Practice of persons not under 40 yrs. of age who have been qualified for at least 10 yrs. Not more than 4 Practitioners are admitted by the latter method annually. Candidates must be proposed by 2 Fellows of the Faculty.

All examns. of the R.F.P.S. are open to women.

# ROYAL COLLEGE OF PHYSICIANS OF IRELAND AND ROYAL COLLEGE OF SURGEONS IN IRELAND

Address of Committee of Management of the Conjoint Board—Royal College of Surgeons, Stephen's Green, Dublin. Registrar of the R.C.P.—6 Kildare St., Dublin.

Professional examns. for the LICENCES IN MEDICINE, SURGERY, AND MIDWIFERY are held by the Conjoint Board in spring, summer, and autumn. Candidates must comply with the requirements of the Gen. Med. Council (v. supra) re Prelim. examn. and Registration of

students. The First Professional Examn. (fee, 25 gs.) comprises Anat., Physiol., and Histol. The Second (fee, 10 gs.): Pathol., Materia Medica and Pharm., Therap., Forensic Med. and Public Health. The Final (fee, 6 gs.): Med., including fevers, Mental Diseases and Diseases of Children; Surg., including Operative Ophthalmic Surg.; Midw. and Gynæcol., Vaccination, and Diseases of Newborn Children.

Institutions recognized for instruction in subjects of the First examn. include numerous schools in the U.K., and also the Univ. of Cape Town and the Witwatersrand Univ., Johannesburg. Institutions recognized for certification of studies include: in Canada—the Univs. of Dalhousie, Laval, McGill, Toronto, Trinity Coll. and Vict. Coll., Tor.; Bishop's Coll., Montreal; R.C.P.S., Kingston; in Australia—Univs. of Melb. and Syd., Adelaide Infirmary, Melb. Hospl., Alfred Hospl., Melb., Syd. Hospl., Royal Prince Alfred Hospl., Sydney, Genl. Hospls. of Hobart and Launceston; in N.Z.—Dunedin Hospl.; in Cape Town—S. African Coll.; in India—Med. Colls. of Bengal and Madras; the Ceylon Med. Coll.

Candidates who have passed in any of the required subjects at examns, conducted by any Licensing Body recognized by the R.C.P

and R.C.S. may be exempted from further examn. therein.

Examns. for the Licences of the R.C.P.I. are held early in Feb., May, and Nov., and at specially appointed times. That for the Licence in Medicine (fee, 15 gs., or for Special examn., 20 gs.) comprises Practice of M., Clinical M., Path., Med. Jurispr., Midw., Hygiene, Therap. It is open to a Med. Practitioner registered by the Gen. Med. Council or on the Register of Saorstát Éireann if the Coll. be satisfied as to his character, courses of study and examns. passed. The examn. for the Licence in Midwifery (fee, 8 gs., special, 12 gs.) is open to Registered Med. Practitioners: (a) of the U.K. or of Saorstát Éireann, who have (i.) obtained the Lic. in Med. of the College or have passed the examn. therefor, or (ii.) satisfied the College as to character and as to course of study pursued and examns. passed; (b) of 5 yrs.' standing who have so satisfied the College. Entrants under (b) are exempt from the written examn. Particulars are obtainable from the Registrar, Royal College of Physicians of Ireland, 6 Kildare Street, Dublin.

Examns. for Membership of the R.C.P.I. are held in Feb., June, and Nov., and at specially appointed times. Applications for admission should reach the Registrar by 2nd week in Dec., Apr., and Sept. Fee, 35 gs., or for L.R.C.P.I., 20 gs.; extra for Special examn., 10 gs. The examn is open to Registered Med. Practitioners: (a) who have held for at least a year a Licence in Med. of a College of Physicians of the U.K., or a degree (B. or D.) of any Univ. in the Empire registrable by the Gen. Med. Council; or (b) who hold a foreign qualification to practise Med. and Surg. in their own country, obtained after a course of study satisfactory to the College. The testimony of a fellow or member of the Coll. or a F.R.C.P. Lond. or Edin. as to professional conduct and moral character is also required. The Dipl. of membership carries with it the Licence if this has not been already obtained. Exemption from part of the examn. may, under special circumstances, be allowed by the Court of Examiners.

For admission to the Fellowship of the R.C.P.I. (fee, £35; stamp duty, £25) the candidate must have been a member of the College for

I yr. Minimum age, 27. It is open to women.

The R.C.S.I. holds examns. (fee, 5 gs.) for a LICENCE IN SURGERY at the same times as those of the Conjoint Board. They are open at the discretion of the Council to Registered Med. Practitioners who have passed through a course of study and examns. equivalent to those required by the Conjoint Board and an examn. in Arts recognized by the Gen. Med. Council. Fee for Licence, 25 gs., including 5 gs. examn. fee.

The R.C.S.I. also holds examns. for a DIPLOMA IN MIDWIFERY. Candidates must have a registrable qualification and produce certificates of attendance at Lectures, 6 months' Hospital practice and conduct of 30 labour cases. Fee, 15 gs.

The examn. for the Fellowship of the R.C.S.I. is in 2 parts. Fee for each, 5 gs. For admission to the Final part a candidate must be a Licentiate or Graduate in Surg. of a Univ. or licensing body recognized by the Gen. Med. Council. Minimum age, 25. Fee on admission to Fellowship, 40 gs., or for Licentiate of the College, 25 gs.

### SOCIETY OF APOTHECARIES OF LONDON

Incorporated by Royal Charter, 1617. Address—Water Lane, Queen Victoria St., London, E.C.4.

Examns. for the Diploma of Licentiate in Med., Surg., and Midw. (L.M.S.S.A.) are held in London, the Pre-Medical Examn. in Chem., Physics, and Biol., and the Primary examn. in Materia Medica and Pharm., Anat., Physiol., and Histol. in Jan., April, July, and Oct., the Final, monthly, except in Sept. Fees: Pre-Med., 5 gs.; Primary and Final, 20 gs. For admission to either, certificates are required showing in detail the course of Medical study pursued, with particulars of instruction received, hospital practice attended, operations performed and offices held. The course covers 5 yrs. from the date of registration as a medical student. Exemption from the Pre-Med. or Primary may be obtained by passing equivalent examns. recognized by the Society.

## ROYAL COLLEGE OF VETERINARY SURGEONS

Address—Io Red Lion Sq., London, W.C.I. Affiliated Colleges—Royal V. College, Camden Town, London, N.W.I; The V. School of the University, Liverpool; Royal (Dick) V. College, Summerhall, Edinburgh; The V. College, Buccleuch St., Glasgow; The V. College of Ireland, Ballsbridge, Dublin.

A candidate for the *Membership* must, after passing one out of a list (similar to that of the Gen. Med. Council, v. supra) of recognized Preliminary Educational examns., attend courses in one of the Affiliated Colleges during 4 yrs.\* as follows: 1st year (from which exemption is given under certain conditions to graduates in Arts, Sci., or Med.):

<sup>\*</sup> To be increased to 5 yrs. as from Oct. 1932.

Anat. of Domestic Animals; Chem. and Elem. Physics; Biol., Elem. Zool., and Botany. 2nd year: Anat. of Dom. Animals; Physiol. and Histol.; Stable Management, Shoeing, etc. 3rd year: Path., Bact., and Protozool.; Mat. Med., Tox., and Practical Pharmacy; V. Hygiene and Dietetics. 4th year: Principles and Practice of V. Med. and V. Surg. and Obst.; Meat Inspection. An examn. (fee, £5) is held at the end of each year's course.

Qualifications for *Fellowship*: 2 yrs.' practice after membership, and a thesis on results of original research followed by oral and, if deemed necessary, written and practical examns. Fee, 15 gs.

The examn. for the *Diploma in V. State Medicine* is open to holders of M.R.C.V.S. after a special course at a V. School and training under

a County or Municipal V. Inspector. Fee, £5:5s.

Matriculated students of London or Edinburgh Univ. may sit for the Internal Degrees of B.Sc. and D.Sc. in Vet. Science. Matriculated students of the Liverpool School may take the examns. for the Degrees of B.V.Sc. and D.V.Sc. Holders of the M.R.C.V.S. may also, after taking a special post-graduate course at the Univ. of Liverpool, enter for the Dipl. in Vet. Hygiene (D.V.H.), and after a post-graduate course at the Univ. of Manchester for the Dipl. in Vet. State Medicine.

#### THE ROYAL SANITARY INSTITUTE

Founded 1876. Incorporated 1888. Address — 90 Buckingham Palace Road, London, S.W.r. Branches in S. Africa, New Zealand, and New South Wales, and Examination Boards in all parts of the British Dominions.

The Institute is a composite body, representative of the various sciences allied to sanitation and public health, and its members (over 5000) include Medical men, Engineers, Architects, Municipal Officers, etc.

Qualifications for (1) Membership: evidence of attainments of standard indicated by certain of the Inst.'s own certificates, a University Degree, or Dipl. of a Med. Corporation recognized by the Council, San. Science certif. of Surveyors' Instn., Testamur of the Instn. of Munic. and County Engineers, and membership of certain other professional bodies; (2) Associateship: one of the Inst.'s certificates or other evidence of attainments of similar standard. Annual Subsn. for Members, 1½ to 2 gs.; Associates, 15s. to 1 g. Fellows are elected from Members of at least one year's standing. Authorized signatures: M.R.San.I., A.R.San.I.

Examns. held by the Institute (fee, 4 to 5 gs.): (r) Inspectors of Meat and Foods; (2) Smoke Inspectors; (3) Sanitary Sci. as applied to Buildings, etc.; (4) Health Visitors; (5) School Hygiene, including Elem. Physiol.; (6) Tropical Hyg. for Inspectors; (7) General Hyg. and Sanitation; (8) Food Hyg.; (9) San. Inspectors (overseas). The Institute's Certificates (Cert. R.San.I.) are recognized by Public Authorities as qualifications for appointments.

The examns. are held in London and in numerous other towns in the U.K. and in Canada, Australasia, S. Africa, Hong-Kong, West Indies, Straits Settlements, and Mauritius. Examns. for San. Inspectors are held in Bombay and Rangoon in co-operation with the Local Governments.

Courses of Lectures and Demonstrations are held in London in

spring and autumn. Fees, 3 to 6 gs.

The Parkes Museum, founded 1876, became part of the Inst. in 1888. It serves as a public demonstrating school. The Inst. has a large Library, including many foreign works. Sessional meetings, about ten yearly, are held in London and other large towns.

Congresses and exhibitions have been held almost every year since

1877.

Publications. Journal, monthly, and numerous pamphlets.

## THE ROYAL INSTITUTE OF PUBLIC HEALTH

Founded 1886. Incorporated 1892. Address — 37 Russell Square, London, W.C.I.

The Institute provides courses of Instruction qualifying for admission to the examinations for the Degrees and Diplomas in Public Health of all the Univs. and Medical Corporations. Fees for Laboratory Instruction: 6 months, 34 gs.; P.H. Admn., 15 gs.; Fever Hosp. Admn., 4 gs.; Special Lab. Fees., Chem. or Bact., monthly, 10 gs., 3 months, 20 gs. Courses of free lectures are also given in the Lecture Hall of the Inst. Special lectures open to Fellows, Members, and Students. Subscription, 1 g. p.a. Registration Fee, 1 g.

The Laboratories are recognized as a place of research in connexion with the Beit Memorial Fellowships. Researches and Clinical Examns. are undertaken for Public Bodies and Med. Practitioners. Culture

media of all descriptions are supplied.

Reference Library containing all important P.H. Works, Govt. Reports, etc.

Publication. Journal of State Medicine, monthly, 2s.

### THE INSTITUTE OF HYGIENE

Founded 1903. Incorporated by Royal Charter 1929. Address—28 Portland Place, London, W.I. Telegrams—Saluminate, Wesdo, London.

Examns. for Certificates and Diplomas (advanced) are held at various centres in the U.K. on the second Saturday of Jan. and of June. Subjects: General H., School H., Mothercraft and Child Welfare. Fee, I to 2 gs. Complete syllabus with list of Text Books, Is. Specimen questions, Id.

The Certificate and Diploma in General Hygiene qualify for nomina-

tion as Associate and Member (M.I.H.) respectively.

Public Lectures are regularly given throughout the year in the Lecture Hall. The Inst. conducts analytical and bacteriological investigation, and has a Museum of Hygiene open to the public free throughout the year.

## XII

#### THE INSTITUTION OF MINING AND METALLURGY

Founded 1892. Incorporated by Royal Charter 1915. Objects: Advancement of the Science and Practice of Mining in respect of minerals other than coal and of Metallurgy in respect of metals other than iron; and to afford a means of facilitating the acquisition and preservation of that knowledge which pertains to the profession of a Mining Engineer and Metallurgist. Address—Cleveland House, 225 City Road, London, E.C.I. Telegrams—"Minanmet, London."

Qualifications for Membership (M.Inst.M.M.): minimum age, 30, having been for at least 5 yrs. in full charge of important mining or metallurgical operations or in practice as a Consulting Mining Engineer or Metallurgist; if born after Dec. 31, 1894, a regular course of at least 3 yrs.' study in pure or applied science. Qualifications for Associateship (Assoc.Inst.M.M.): minimum age, 25, having been engaged in mining or metallurgical pursuits for not less than (a) 2 yrs. if a graduate of the R.S.M. or other mining college or school of equivalent standing; (b) 3 yrs., or such longer period as Council may determine, if a graduate of some other college or school; (c) 6 yrs. in other cases. The minimum age for admission as student is 18. A candidate for either Membership or Associateship must be actually practising his profession at the time, and must satisfy the Council as to his fitness for admission. The Council may elect a candidate as Member in consideration of his position and attainments in Science or Technology. Entrance fee and annual subsn. for Member, 5 gs. each; Assoc., 3 gs. Students' subsn., 1 g. (over 25—1½ g.) p.a. and no entrance fee.

General meetings for discussion of papers monthly, Oct.-May. Large Library, reading- and writing-rooms. Publications: Bulletin, monthly (£1:11:6 p.a.), and Transactions annually (£1:11:6 p. vol.); may be purchased by non-members. Gold medals, etc., are awarded by the Instn. for promoting its objects. Secretary and Editor: Charles McDermid.

# EMPIRE COUNCIL OF MINING AND METALLURGICAL INSTITUTIONS

At an Empire Mining and Metallurgical Congress held at the British Empire Exhibition, 1924, it was resolved to form a Council to promote intercommunication and co-operation between the constituent institutions, to create and maintain a higher standard of technical efficiency and professional status, to convene future Congresses, etc. Secretary-General—Charles McDermid. Address—Cleveland House, 225 City Road, London, E.C.I. Telegrams—"Minanmet, London."

# INSTITUTION OF MINING ENGINEERS

Established 1889. Incorporated by Royal Charter 1915. Address—Cleveland House, 225 City Road, London, E.C.I. Telegrams—"Instimini, Phone, London."

The Institn.'s objects and purposes are "the advancement of coal and iron-ore mining and allied industries, and the promotion of the acquisition of the knowledge necessary for the control and direction of mining operations in relation to stratified deposits." It is a federation of the Manchester Geol. and Mining Soc.; the Midland Counties Instn. of Engineers; the Midland Inst. of Mining Engineers; the Mining Inst. of Scotland; the North of England Inst. of Mining and Mech. E.; the North Staffs. Inst. of Min. E., and the South Staffs. and Warwickshire Inst. of Min. E. Membership is obtained by nomination through the Council of one of the Federated Institutes.

Conditions of admission to membership include: (a) regular education and training as a Min. E., and 5 yrs.' work in a responsible position in practical Mining; or (b) First-Class Certif. of Competency under Coal Mines Act, and tenure of post as Manager, Asst. Manager, Under-Manager, or Chief Surveyor; or (c) position or attainments rendering his membership desirable in the opinion of the Council. There are Hon. Members, Members, Associate Members, Associates, and Students.

Mavor and Coulson Travelling Studentship, tenable abroad, £300 for 1 yr. Open to Brit. subjects over 22 and under 30 who are studentmembers, Assocs., or Assoc. members of the Instn., have graduated in mining at a Univ. or Coll., or hold the Dip. in Mining of an approved Coll. or School of Mining, or who otherwise satisfy the Council that they have had a scient. training, and at least 2 yrs.' underground experience in a colliery.

Publications. Transactions (in which are included procdgs. of Federated Insts. as well as those of the Instn. itself), 81 vols. Price to non-members, 36s. each for current volumes; back volumes at varying rates. Authorized signatures: M.I.Min.E.; Assoc.M.I.Min.E., etc.

Secretary and Editor: Charles McDermid.

## THE IRON AND STEEL INSTITUTE

Founded 1869. Incorporated by Royal Charter 1899. Address—28 Victoria St., London, S.W.1. Telegrams—Irosamente, Sowest, London.

Qualifications: (1) for Membership—minimum age, 21; being practically engaged in iron or steel works or being a person of scientific attainments in metallurgy or specially interested in the applications of iron and steel. Entrance fee, 2 gs.; annual subsn., 3 gs. (if resident abroad, 2½ gs.). (2) For Associateship—maximum age, 24; being (a) Student of Metallurgy taking a course at a Univ., Univ. College, or Tech. School, or (b) pupil or apprentice in metall. or engin., or (c)

employed in some practical or scientific capacity in met. or engin. works. Annual subsn., r g. Initials: M.I.S.I, A.I.S.I.

Meetings in May and Sept. for reading and discussion of papers. Library, reference and lending; Information Bureau; service not restricted to members.

Carnegie Research Fund—£20,000, interest on which is used for grants to assist metallurgists and students (maximum age 35) in conducting researches.

Williams Prize Fund—£3000, interest on which is applied as a money award for the best practical paper, on manufacture or treatment of iron or steel, presented in any one year.

Publications. Journal in 2 vols. annually; Carnegie Scholarship Memoirs, I vol. annually; Iron, Steel, and Industrial Fuel, monthly (a survey of current tech. literature).

#### THE INSTITUTE OF METALS

Founded 1908. Incorporated 1910. Address—36 Victoria St., London, S.W.1.

Local Sections in Birmingham, Glasgow, London, Newcastle-on-Tyne, Swansea, Sheffield.

The Inst. aims at "the advancement of the non-ferrous metals industry and the associated sciences," by the co-operation of manufacturers, users and scientific investigators. It concerns itself rather with the manufacture and working of metals and alloys and with their properties and modes of treatment and testing than with the production of metals from their ores. The leading features of its work are the holding of sessions in the spring and autumn and an annual "May lecture" given by some acknowledged master of his subject; in addition a special "Practical lecture" is given annually in the autumn by an expert non-ferrous technician.

Qualifications for Ordinary Membership (M.Inst.Met.): minimum age, 23; occupying a responsible position, being either engaged in the manufacture, working or use of non-ferrous metals and alloys, or a person of scientific, technical or literary attainments connected with or interested in the metal trades or with the application of non-ferrous metals and alloys. Limits of age for Student Members, 18-23. Entrance fee and annual subsn. for Ordinary Members, 2 gs. and 3 gs. Students, 1 g. and 1 g. Assoc. members of local sections pay a nominal subscription and do not receive the *Journal*. Fellows (F.Inst.Met.) are limited in number to 12. They are chosen by Council for having rendered eminent service to the Inst.

The Journal is issued monthly (contains abstracts and reviews of the more important current pubns., British and foreign, bearing upon nonferrous metals) and half-yearly (contains the proceedings of the meetings). Price to non-members £4 for the 3 annual vols. (post free).

Library with all the current journals of interest to those concerned with metals.

# THE INSTITUTION OF PETROLEUM TECHNOLOGISTS

Incorporated 1914. Address—Aldine House, Bedford St., Strand, London, W.C.2.

Conditions of admission:

A. To Membership (M.Inst.P.T.). Candidates (a) must (1) be not less than 28 years of age, (2) have received a good general and scientific education, (3) have held for at least 5 years a responsible post in petroleum technology, or (b) must be in the opinion of the Council fit and proper persons to belong to the institution.

B. To Associate Membership (A.M.Inst.P.T.). Candidates must (1) have received a good general and scientific education, (2) have had at

least 2 yrs.' practical experience as petroleum technologists.

Annual subscriptions: Students I g., Associates 2 gs., Assoc.

members 2½ gs., Members 3 gs.

Publications. Journal, 12 Parts per annum (monthly). Annual Subscription, £3:13:6 (free to members). Rules, etc., 2s. 6d. The Petroleum Industry, 2s. 6d. List of Members, 2s. 6d. Report of Standard Methods of Testing of Petroleum and its Products, 7s. 6d. (Revised edition, 1929.)

# XIII

# THE CHARTERED INSTITUTE OF PATENT AGENTS

Founded 1882. Incorporated by Royal Charter, 1891. Address—Staple Inn Buildings, London, W.C.1.

Under the Patents and Designs Acts, 1907 and 1919, it is illegal to practise as a Patent Agent without being duly registered. The Register of Patent Agents is kept by the Institute in accordance with the Board of Trade's Rules of 1920.

Examinations are conducted or recognized by the Inst. for (a) the Registration of P.A.'s and (b) the admission to the Inst. of Fellows, Associates, and Students. The Inst. recognizes as Preliminary examns. those of Matricn. standard.

The Inst. holds each year (i.) Intermediate (fee, 2 gs.), and (ii.) Final examns. (fee, 3 gs.), qualifying for Registration. Latest date for entry, March 1. Subjects of (i.): A. Patent Law and Practice, Designs, Trade-marks, Foreign Law, the reading of Mechanical Drawings; B. Manufactures, Science, and the preparation of Mechanical Drawings. Subjects of (ii.): A. Preparation of Specifications for British Colonial and Foreign Patents; B. Interpretation of British Specifications. A candidate for admission to (i.) must have passed one of the approved Prelim. examns. and (a) have served 3 yrs. as a pupil or technical asst. to one or more registered P.A.'s or (b) have so served for 2 yrs. and

attended a 2 yrs.' course at an approved Tech. Coll. or had 2 yrs.' approved practical experience, or (c) have so served for 1 yr. and taken a Univ. degree in the U.K. or attended a 3 yrs.' course at an approved Tech. Coll. or had 3 yrs.' approved practical experience; or (d) have served in the Patent Office for 5 yrs. on the Examining Staff (Patents), or (e) be entitled to practise as a Solicitor or (Scotland) Law Agent.

Candidates for admission to (ii.) must have passed (i.) and have served as above for a period of 2 yrs. in addition to terms under (a), (b),

or (c) above, as case may be, or be entitled as in (e).

Minimum age for membership of the Inst.—25. Other qualifications: For Fellowship, (a) having ceased to be an Associate by reason of being in practice on own account as P.A.; (b) having passed Final examn.; (c) special dispensation in case of candidate specially approved by the Council. For Associateship (not applicable to person registered as a P.A.); (a) being qualified and able by reason of connexion with the Law, Science, or the Arts, to advance the objects of the Inst.; (b) being pupil or asst. of 3 yrs. 'standing of a Fellow or a Student attached to the Inst. and having passed Interm. Examn. For Foreign Membership: having been established in practice as P.A. for a sufficient time, not less than 3 yrs. in a British Dominion, Colony, or Dependency or in a Foreign Country and neither having an office nor practising in the U.K.

Minimum age for "Studentship"—18. Other qualifications: being an articled pupil of a Registered P.A. and having passed an approved

Prelim. examn.

Entrance fee for Fellow, 3 gs.; Assoc., 2 gs.; Foreign Members, 2 gs.; Student, r g. Annual subs.: Fellows, 3 gs.; Foreign Members, 2 gs.; other classes, r g. Fellows' initials: C.P.A.

# XIV

#### PHARMACEUTICAL SOCIETY OF GREAT BRITAIN

Address-17 Bloomsbury Sq., London, W.C.I.

Examinations (open to women as well as men) are held in London and Edinburgh in Jan., April, July, and Oct.: the *Prelim. Sci.* examn. (fee, 6 gs.) followed by either the *Chemist and Druggist Qualifying* examn. (fee, 12 gs.), for registration under the *Pharmacy Act*, 1868; or the *Pharmaceutical Chemist Qualifying* examn. (fee, 12 gs., April and July) for registration as *Pharmaceutical Chemist* (Ph.C.) under the Act of 1852. No person can enter for the Prelim. Sci. examn. who is not a *Registered Apprentice or Student*, and this involves passing in four specified subjects at not more than 2 approved prelim. examns. of Matricn. standard.

The Society's *School* is recognized by the Univ. of London as a School of the Univ. in Pharmacy, and the Dean of the School is Univ. Prof. of Pharmaceutics.

# XV

#### INSTITUTE OF PHYSICS

Founded 1918 by co-operation in the first instance of the Physical, the Faraday, and the Optical Societies, and incorporated under the Companies' Acts in 1920. Other participating Societies are: The Royal Meteorological Society, and the British Institute of Radiology. Address—I Lowther Gardens, Exhibition Rd., London, S.W.7.

Corporate members are of two classes: Associates (A.Inst.P.) and Fellows (F.Inst.P.). Qualifications for Associateship are: (i.) the passing of an examn. held by the Inst. or a recognized equivalent examn.; and (ii.), a yr.'s approved research or manufacturing experience. The examn. may be excused to candidates with qualifications approved by the Board. A candidate for Fellowship must, in addition to his academic qualifications, have had 5 years' experience either in research or manufacture or in any position requiring a thorough knowledge of Physics. Entrance fees, I g. and 2 gs. Annual subsns. I g. and 2 gs. All classes of membership are open to women on the same terms as to men

Student membership is open to persons over the age of 16, who have passed a recognized Prelim. examn. and are students at certain Univs. or schools or pupils of a Fellow of the Institute. Annual registration fee, 5s.

An Appointments Register and a Panel of Consulting Physicists are maintained.

A series of Lectures on "Physics in Industry" was instituted in 1922. Part I., published by Henry Frowde and Hodder & Stoughton in their "Oxford Technical Publications"; II., III., IV., and V., Oxford Univ. Press. All later lectures published by Institute. Journal of Scientific Instruments (in co-op. with Nat. Phys. Laboratory) (monthly, 2s. 6d., subsn. 3os. p.a., payable to Cambridge Univ. Press); free to Fellows; Associates and Students, 10s. 6d. p.a.

# XVI

# CHARTERED INSTITUTE OF SECRETARIES

OF JOINT-STOCK COMPANIES AND OTHER PUBLIC BODIES

Founded 1891. Incorporated by Royal Charter, 1902. Address—6 London Wall, London, E.C.2. Branches at Birmingham, Bristol, Hull, Liverpool, Manchester, Newcastle-on-Tyne, Nottingham (for N.E.

Midlands), Bradford and Leeds (for West Yorks), Sheffield, Cardiff, Swansea, Edinburgh, Glasgow; and overseas in Canada (Montreal, Ottawa, Toronto), Australia (Brisbane, Melbourne, and Sydney), and South Africa (Johannesburg).

Examns. are held in London and at various other places both at home and abroad in June and Dec. A candidate must either enter into Articles of Clerkship with a member of the Inst. for a period of 4 yrs. (if a graduate, 3 yrs.) or obtain registration as *Student* in course of preparation for the secretarial profession.

The Preliminary examn. (fee, I g.; min. age, 16) comprises (i.) English (Grammar, Compn., Dictn.), (ii.) Arith., (iii.) Engl. Hist. or Geog., and (iv.) one of Hist. or Geog. (if not taken under (iii.)), Latin, French, German or Spanish, or Algebra and Geometry. 'Approved examns. of matricn, standard exempt from the Prelim. examn.

For admission to the *Intermediale* (fee, 2 gs.) a candidate must have passed or been exempted from the Prelim. Graduates in Arts, Commerce, Law, or Sci. of recognized Univs. in the U.K., and persons who have passed the Final of the Bar Council, Law Soc., Inst. C.A., Soc. of Inc. Acctts. and Audrs., Ch. Ins. Inst., Inst. of Bankers, (member) Inst. Bankers, Scotland, Inst. Bankers, S. Africa, Austrln. Corp. Pub. Accts., Commw. Inst. Accts., Fedl. Inst. Accts., Inst. Inc. Accts., N.S.W., Ass. Pub. Accts., Austr., Inst. Pub. Accts., Australasia, are allowed a pass in the Interm. on attaining the usual standard of proficiency in any 4 of the specified examn. subjects they select approved by the Council, but must pass the Final as a whole before election to membership.

For admission to the *Final* (fee, 2 gs.; min. age, 21) a candidate must have passed the Interm. The subjects are: Econ., Sec. practice and duties (2 papers), Accts., Merc. Law, an approved foreign lang., or Banking and Exchange, and one special law subject (e.g. Companies or Insurance).

Associate Membership (A.C.I.S.) can be obtained after 6 yrs.' service with a Public Coy. or Body; Fellowship (F.C.I.S.), after 8 yrs.', of which 3 have been as Secy. or Asst. Secy. A Fellow may describe himself as a Chartered Secretary; so likewise may an Associate if having passed the Final Examn. he holds or has held office as a Secretary, Asst. Sec., Chief Acct., Registrar or Chief Clerk of a Company, or other body corporate.

Publications: Yearbook; Secretarial Practice (12s. 6d.); Powers of Attorney (5s.); The Secretary (monthly, 1s.).

#### THE INCORPORATED SECRETARIES ASSOCIATION

Incorporated 1907. Address—Secretaries House, 21 Bedford Square W.C.I. Branches at Manchester, Liverpool, Birmingham, Leeds, Sheffield, Nottingham, Newcastle, Bristol, Glasgow, Cardiff, Swansea, Hull, etc., and in Bombay, South Africa, etc.

EXAMINATIONS.—Candidates for the examinations of the Association, Prelim., Interm., and Final, which are held in London and other centres in June and Dec., must be registered as Students or Graduates.

The subjects in which candidates are examined are almost identical with those of the Chartered Institute.

There are two grades of membership, which are available to both men and women on equal terms: (1) Associateship, initials: A.I.S.A.; and (2) Fellowship, initials: F.I.S.A. Both grades are entitled to describe themselves as "Incorporated Secretary"

Publications: The Incorporated Secretaries Journal (monthly), and

A Manual of Secretarial Practice.

# XVII

# THE CHARTERED SURVEYORS' INSTITUTION

Founded 1868. Incorporated by Royal Charters, 1881 and 1921. Address—12 Great George St., Westminster, S.W.1. Telegrams—Surveyable, Parl., London.

Professional examns. (fees: Interm. or Final, 5 gs.; Direct Fellowship, 5 gs.; applications receivable in Sept.) are held in March in London, Glasgow, and Dublin, and a Prelim. examn. (fee,  $1\frac{1}{2}$  g.) in Jan. in the same places and Manchester.

The *Preliminary* comprises Elem. Maths., Hist., Compn., and one of: Latin, French, German, Inorg. Chem., Botany, Geol. Candidates are expected to reach the standard of the Oxford and Cambridge School Certificate examn. Candidates are exempt from the Prelim. if they have passed an approved examn. of matricn. standard, Inst. C.E. Studentship, Prelim. of Inst. C.A., Law Soc., Auctioneers' and Estate

Agents' Inst. or Sandhurst or Woolwich.

For admission to the (i.) Intermediate (min. age, 19), a candidate must, unless at an approved place of instruction (see below), be actually engaged in an office where he has opportunities of obtaining practical experience in the profession. The subjects are grouped thus: I. chiefly Land Agency, II. chiefly Valuation, III. chiefly Building or chiefly Quantities, IV. chiefly Mining. A candidate may select any one of these subdivisions. For the (ii.) ordinary Final examn. the candidate must have passed the Interm. in the subdivision which he takes for the Final. The (iii.) Direct Fellowship examn. (min. age, 30) may be taken, without having passed (i.) or (ii.), by a candidate who has been in practice on his own account for 5 yrs. The (iv.) Special Degree Holders examn. may be taken, on the same conditions as to professional training as (i.), by a candidate holding a Univ. degree in subjects bearing upon the surveying profession. All candidates for (i.), unless they have passed one of the exempting examns., must have passed the Prelim. Examn. or, if over the age of 25, a special test of general education.

Candidates between the ages of 18 and 21 who have passed the Prelim. or Exempting examn. are recommended to become Students. They must be pupils or assistants of a Surveyor or be taking a full-time

course approved by the Council as bearing on the profession of Surveyor, at one of the Univs. of the U.K. or their Affiliated Colls., or one of the following: Harper Adams Agr. Coll., Newport; Univ. Coll., Southampton; Coll. of Estate Management; Midland Agr. Coll.; Seale-Hayne Agr. Coll., Newton Abbot; the School of Architecture, Regent Street Polytechnic; and, under certain conditions, the Northern Polytechnic, Holloway, N.

For election as Professional Associate (P.A.S.I.) a candidate must have passed (iv.) or (i.) and (ii.), and be in practice as a Surveyor on his own account or employed as an Asst. in a Surveyor's office. For the Fellowship (F.S.I.) a candidate must have passed either (i.) and (ii.) or (iii.) or (iv.), and had 5 yrs.' experience as, and still be, either a Principal or Responsible Manager in an established business or a Head of a Dept. in the office of a public body reporting direct to his Board or Council.

Scholarships: One scholarship is offered annually, value froo for 3 yrs., to enable the scholar to read at Cambridge for the B.A. degree. The course must be taken from certain subjects prescribed by the Instn. Applns. should be submitted not later than the end of Feb. For further particulars apply to the Secretary. See also App. XXIII. (Travelling).

# XVIII

#### TEXTILE INSTITUTE

Founded 1910. Incorporated by Royal Charter 1925. Address—Head Office, St. Mary's Parsonage, Manchester. Branch office, 104 Newgate Street, London, E.C.1.

The Associateship (A.T.I.) implies, in addition to Inst. membership for not less than 6 mos. prior to appln., attainments tested by examn. in connexion with recognized training instns., the passing of the Inst.'s Examn. in Genl. Textile Technology, and a period of approved occupation. The Fellowship (F.T.I.) involves systematic study or research, subsequent to Associateship, and a further period of approved occupation.

# XIX

#### TEACHERS REGISTRATION COUNCIL

Established by Act of Parliament 1907, and constituted by Orders in Council 1912 and 1926. *Address*—47 Bedford Sq., London, W.C.1.

The Conditions of Registration are: (a) a degree or other qualification approved by the Council; if obtained in respect of a technological subject the applicant must have spent 36 months, after attaining the

age of 16, in the practice of the profession or industry in question, and of this period 12 mos. must have been concurrent with or subsequent to the course for the degree (or other qualification); (b) successful completion of a course, extending over at least 1 academic year or its equivalent, of training in the principles and methods of teaching, carried on under conditions approved by the Council and accompanied by practice under supervision; (c) experience as a teacher in educational institus, accepted for the purpose by the Council for a period varying according to circumstances, but in no case less than 1 academic year.

Condition (b) is waived in the case of a teacher who has had not less than I academic yr. of experience as Recognized Teacher in Univs. and instns. of Univ. rank approved by the Council for this purpose. Until further notice condition (b) will be modified in other cases where the Council is satisfied that special circumstances have prevented the applicant from taking an approved course of training in teaching.

Registration fee: A single and final payment of £3.

#### ROYAL SOCIETY OF TEACHERS

Executive: The Teachers Registration Council. President: The Rt. Hon. Lord Gorell, C.B.E., M.C. Membership is restricted to those who have satisfied the conditions of Registration, and have been admitted to the Official Register of Teachers maintained by the Council. Initials: M.R.S.T.

# EDUCATION AND TRAINING OF TEACHERS IN ENGLAND AND WALES

Courses of training for the teaching profession, recognized and aided under the Regulations of the Board of Education (Whitehall, London, S.W.r), are provided in Training Colleges and in the Training Departments which form part of the work of all Univs. in England and of the constituent Colleges of the Univ. of Wales and the Univ. Colleges of Exeter, Nottingham, Southampton, Hull, and Leicester.

A person who desires to enter a Training College as a recognized student or as a private student intending to follow a course qualifying him for recognition as a Certificated Teacher must (i.) be over the age of eighteen, or seventeen if he is commencing a four-year course which includes work for a University Degree, on the first day of the Academic year for which he is admitted to the College, or, if that day is the 1st August and the College authorities think fit, within two months thereafter; (ii.) have passed before admission a First Examination for Secondary Schools or some approved examination of at least equivalent standard (e.g. the Matriculation Examination of any Univ. in England or Wales); and (iii.) satisfy the College authorities as to his character, probable suitability for the teaching profession, and health and physical capacity for teaching. A person who desires to enter as a recognized

(i.e. grant-earning) student must also (iv.) be a British subject ordinarily resident in England or Wales, unless an exception to this rule is approved; and (v.) sign a declaration of intention to complete the course of training and thereafter to adopt and follow the profession of teacher in an Approved school.

The principal types of courses at present recognized are: (i.) 4-year, i.e. 3 yrs. of study for a Univ. degree, followed by a year of professional training; (ii.) 2-year, including a period of professional training concurrently with a period of academic study; this course may, under special conditions for individual students, be extended for a third year or renewed for a year after three years' teaching in approved schools; (iii.) 1-year, for graduates or Certificated Teachers who have not previously been trained at Training Colleges.

As regards (i.), a student may be admitted to the 2nd, 3rd, or 4th year if he has completed 1 yr., 2 yrs., or the whole of the course for a degree before entering the Training Department. He will not as a rule be certificated as a Teacher unless he has passed a Final examination

for a degree.

As regards (ii.), suitable Univ. examinations forming recognized stages in courses for degrees may, for the present and subject to certain conditions, be approved for individual students as alternative final examinations in academic subjects.

A course of training extending over not less than I yr. at a Secondary School and providing for a systematic study of the principles and practice of teaching may be approved for a person who has obtained a Univ. degree, and a grant may be paid by the Board to the Governing

Body of the School.

Teachers with at least 5 years' teaching experience are eligible for Studentships: "Full-time Studentships" are grants at a rate not exceeding froo for an academic year for full-time courses of advanced study or research either at Univs. or other institutions; these are intended for teachers who are able to obtain a term or longer period of grace from school teaching for the purpose, but not for the whole or part of an ordinary degree course.

The College of Preceptors, Bloomsbury Square, London, W.C.I, grants the following Diplomas to teachers: (1) A.C.P., (2) L.C.P., (3) F.C.P. The A.C.P. and L.C.P. examns. include a written examn. and a practical test of ability to teach. Candidates for the A.C.P. must show that they have reached an approved standard in general education. The L.C.P. examn. is open to University graduates and holders of the A.C.P. Diploma. Candidates must submit evidence of 2 years' professional experience for A.C.P. and 3 years' experience for L.C.P. The F.C.P. Diploma is granted to candidates who, having already obtained the L.C.P. Diploma, submit a satisfactory thesis on some original research or experimental work in Education.

The College of Handicraft (Hon. Registrar, J. Lloyd, A.C.P., F.Coll.H., 124 Belgrave Road, London, S.W.I), a constituent part of the Institute of Handicraft Teachers, incorporated in 1924, grants certificates of competency as Teachers of Handicraft to members of the Institute who satisfy the Bd. of Examiners of the Coll. The standard of examn.

is stated to be that of a University Diploma in Education, and the examns. are held in Jan. of each year. A necessary qualification is recognition by the Board of Education as qualified teacher. A Summer School and a Correspondence Course of Study form part of the College activities, and prizes are awarded for research into the problems of Practical Education. Initials: M.Coll.H., etc. Academical dress may be worn by Members and Fellows.

#### INTERCHANGE OF TEACHERS

Arrangements exist for the interchange of teachers in Secondary Schools between this country and the Dominions, France, Germany, and the United States, and also as regards teachers in Elementary Schools with the Dominions. The usual conditions of interchange, which is normally for one year, are that the teachers concerned are granted special leave of absence on full pay; they thus remain during the period of exchange in the service of their home authorities, and the period of interchange counts for salary-increment and pension. The Teachers Superannuation Act of 1925 further makes it possible for a teacher to leave service in a grant-aided school in England, and to serve for not more than 4 yrs. in the Empire overseas without forfeiture of pension rights, provided 10 per cent. of the salary last received in England is paid by the teacher for the period of overseas service.

The League of the Empire, 124 Belgrave Rd., London, S.W.I, promotes the interchange of teachers between the Mother Country and the Dominions on the lines laid down above. The London County Council authorize the exchange of 50 teachers annually, 133 local authorities in Gt. Britain also co-operate, and over 1900 teachers have been exchanged. Canadian, Australian, S. African, and New Zealand Education Depts. reciprocate. A triennial Conference on Imperial Education is held by the League. An article on the Interchange of Teachers Scheme was printed by the Board of Education in their Report for the year 1925–26. The League has appealed for funds for establishing a "Home Centre" in London, where teachers from any part of the Empire may find housing accommodation, and which should act as a good publicity centre for imperial affairs. Chairman, Prof. E. H. Gardner, M.A., Litt.D. Hon. Treasurer, Lord Askwith, K.C.B.

The Overseas Education League under the auspices of the Govts. of the Dominion of Canada, Newfoundland, New Zealand, and the Depts. of Education of Alberta, B.C., Manitoba, N.S., N.B., Ont., P.E.I., Que., Sask., undertakes the organization of official visits of teachers to Gt. Britain and other parts of the Empire, and interchange of teachers and school inspectors within the Empire. Tours for Canadian Univ. undergraduates to Gt. Britain and Europe are also arranged by the League in addition to Summer Schools in English at Oxford, Stratford-on-Avon, and London, and a School of French at the Lycée Victor Duruy, Paris. In 1925, for the first time, a party of British secondary teachers and others visited Canada from coast to coast under its auspices. Executive Secretary, Power Building, Winnipeg, Canada.

The Fellowship of the Maple Leaf for the supply of British teachers

for the Dominions is interested primarily in Elementary Schools, but also places teachers in Private Schools, High Schools, and Universities. Office—13 Victoria St., Westminster, S.W.1.

British Interchange Committee. The organization for the exchange of teachers in secondary and other schools in this country with similar teachers in foreign countries has recently been studied by the British National Committee of Intellectual Co-operation under the League of Nations. As the result of two Conferences of teachers' organizations, local education authorities, and other bodies interested in the question, a representative national co-ordinating Committee has been established with an Executive Committee to co-ordinate and assist the various organizations engaged in promoting the exchange of teachers with foreign countries. The Chairman of the Committee, which has been recognized by the British National Committee of Intellectual Co-operation as one of its Sub-Committees, is Mr. R. G. Mayor, C.B., late Principal Asst. Secretary of the Board of Education for England and Wales. Secretary, Mr. Oliver Bell, M.A., 15 Grosvenor Crescent, London, S.W.I.

# GENERAL

Association of Scientific Workers. Founded 1918. Address—25 Victoria Street, London, S.W.I. Aims at bringing together into one professional organization all qualified scientific workers, viz.: those engaged in (a) University and other Higher Educational Institutions and State-aided Research Institutions, (b) Industry and Consultative Practice, (c) State and Municipal Scientific Departments. Yearly subscription, 10s. min. Official journal, published 6 times a year, The Scientific Worker. President, Sir Richard Redmayne, K.C.B.; Hon. Secy., B. W. Holman, O.B.E.; Asst. Secy., E. Dexter-Smith.

# Professional Openings in the King's Dominions Overseas

Information on this subject is available in the *Professional Handbook* issued by the Oversea Settlement Department, Caxton House, Tothill St., London, S.W.r, in 7 Parts: I. Barristers and Solicitors, Notaries Public (price 9d.); II. Chemists and Druggists, Dentists, Nurses; III. Dentists, Physicians and Surgeons, Veterinary Surgeons; IV. Civil Service, Clerks, Stenographers, Typists and Accountants, Commercial Travellers; V. Teachers and Governesses; VI. Architects and Engineers; VII. Auctioneers, Surveyors, Police. Price of each Part, 4d.

# XX

MATRICULATION EXAMINATIONS IN GREAT BRITAIN AND IRELAND and exemption therefrom. (See also Appendix XXI.)

# EXEMPTING EXAMINATIONS INDICATED BY A NUMBER IN THIS APPENDIX

- Oxford Responsions;
- 2. Cambridge Previous;
- 3. London Matriculation;
- 4. Durham Matriculation;
- 5. Wales Matriculation;
- Joint Board of Northern English Univs. (Manc., Liv., Leeds, Sheff., Birm.) Matricn.;
- 7. The same Board's School Certificate;
- Oxford and Cambridge Schools Examn. Board's (a) Higher, (b) School:
- 9. Oxford School Certificate (Senior Local);
- 10. Cambridge School Certificate (Senior Local);
- 11. Bristol School Certificate;
- 12. Durham School Certificate;
- 13. London General School;
- 14. Central Welsh Board's (a) School or (b) Higher Certificate;
- 15. Scottish Educn. Dept. Leaving Certif.;

[The School and Higher School Examinations and Certificates referred to in this Appendix are described on p. 4.]

# (a) BIRMINGHAM, LEEDS, LIVERPOOL, MANCHESTER, AND SHEFFIELD

The Matriculation Examn. held at each of these Univs. in July and Sept. (fee, £2) is conducted by a Joint Board. Address of the Secy. (I. M. Crofts), 315 Oxford Rd., Manchester. Candidates are required to satisfy the examiners at one and the same examn. in English Composition, in 5 subjects chosen as follows, and to obtain a minimum aggregate of marks in these subjects taken together: I. either English Literature or History; II. either Maths. or Latin; III. three other subjects, not already taken under I. and II., chosen from: 1. Engl. Lit., 2. Hist., 3. Geog., 4. either Music or Art, 5. Greek, 6. Latin. 7. French, 8. German, 9. some other Approved Language, 10. Maths.. 11. Mechanics, 12. Physics, 13. Chem., 14. Physics-with-Chemistry, 15. Natural Hist., r6. Botany; provided that candidates who take Maths. under II. must include one of subjects 5-9, and those who take Latin under II. must include one of 10-16. A paper on "Experimental Science in its relation to Agricultural Life" may be taken along with 16 but not with 12, 13, or 14. Candidates who take the Mechanics portion of the Physics paper may not take Mechanics as a separate subject. Physics-with-Chem. may not be taken by candidates who take either Physics or Chem. or Mechanics or Agric. Science. Agric. Science may not be taken by candidates who take either Physics or Chem. or Physics-with-Chem. Application to present any other language must be made and the fee (incl. any special fee for this language) paid on or before March I. The several Univs. impose special conditions for entrance to certain Faculties.

Exempting Examns. London Intermediate examn., Intermediate examn. in Arts, Sc., or Med. of an approved Indian Univ., Final Examn. of Law Society (in case of Barrister or Solicitor entering Faculty of Law), Special Army Education Certificate at Advanced Standard; also, subject to provisos, Nos. 1, 2, 3, 5, 7, 8 (b), 9, 10, 11, 12, 13, 14 (a), 15, and at the Board's discretion other examns. of equal or higher standard. The Palestine Matriculation Certificate, see App. XXI. A degree conferred by an approved Univ. after examination also entitles to exemption. See App. XXI.

Trained Certificated Teachers may obtain exemption under certain conditions.

A Special Examination for candidates of mature years (not under 23 on May 1 of year of application) is held. Applications (with fee, £2, and birth certif.) will be received up to May 1.

A Special Examination is held for candidates not below 19 yrs. of age, who have been engaged in industry for at least 3 yrs. since leaving school, and have as students attended satisfactory day or evening courses for at least 3 yrs. English (or History) and a foreign language are compulsory subjects. Date, July. Fee, £2.

# Special Regulations for Entrance to Faculties

BIRMINGHAM. Candidates entering the Arts faculty, except those taking a degree in Music, must have passed in Latin (or Greek) and a Modern lang. Candidates for the LL.B. (Law Faculty) must have passed in Latin. Those taking B.Sc. in Pure Science are recommended to take both French and German in Matricn. examn. Candidates entering the Medical faculty are required to pass in English, Maths., and a lang. other than English.

LEEDS. For admission to courses for the B.A. a Latin qualification is required. Medical and Dental students are ordinarily required to have passed in Maths. at the Matriculation Examn.

LIVERPOOL. Candidates for the B.A. are required to have passed in Latin or Greek at matricn. standard. Engineering students are recommended to pass in Maths. (with the paper in Additional Maths.) and one or two of: Mechanics, Physics, Chem. Students in Metallurgy are recommended to include Chem. in the Matricn. Examn. and in the Higher School Certif. Examn. Medical and Dental students must have passed in Maths.

MANCHESTER. Students intending to enter upon any of the following degree courses must have passed the Matriculation examn. in the subjects named or give evidence of having attained an equivalent

standard. 1. Hons. Schools in Arts (save Archit., Econ., Philo., and Geog.); Latin (or in certain cases Greek), unless prepared to devote 4 yrs. to the course. 2. Science; Maths. and Mechanics. 3. Law; Latin. 4. Medicine; Latin, Maths. and Mechanics. 5. Technology; Maths.

SHEFFIELD. Candidates for the B.A. with Honours (other than in Maths., Econ., Geog. or Archit.) or for the B.A. ordinary degree must pass the Intermediate Examn. in Latin or Greek, and no language course or course in music for the Intermediate Examn. may be entered upon without proof of an adequate elementary knowledge of the language or of music. Law students must have qualified in Latin. Engineering students should present Maths. and include Mechanics or Physics or Chemistry.

## (b) BRISTOL

The University recognizes as qualifying for Matriculation: Graduation in a Univ. in the U.K. or some other approved Univ. Higher school certificate.\* 3. (i.) School certificate with credit in five subjects taken at one and the same time, which must comprise (1) either English or Hist.; (2) either Maths. or Latin or Gk.; (3) three other subjects not already taken under (1) and (2) from the following, under certain conditions: Geog., Music or Art or Relig. Knowl., French, German, any other approved lang., Maths., Mechs., Physics, Chem., Bot., Biol., Gen. Elem. Sc., Geol., Agric. Sci.; (ii.) School certif. if the Senate is satisfied that such proficiency has been shown in a particular group of subjects as to qualify for curriculum for degree. 4. Scottish Edn. Dept.'s Leaving Certif. 5. Special Army Edn. Certif. 6. Trained certificated teacher's qualifns., under certain condns. 7. Matricn. examn. of any univ. of the U.K. if completed at one time. 8. The Palestine Matricn. Certif. subject to certain condns. (see App. XXI.). 9. Sufficient qualifn. for original research in case of candidate for research degree. 10. In exceptional circumstances sufficient education and attainments in case of candidate over 23 yrs.

# (c) Cambridge

The Previous Examination comprises: I. (a) Latin, (b) Greek, (c) French, (d) German, (e) Italian, (f) Spanish; II. (a) Maths. (elementary), (b) Maths. (less elementary), (c) Experimental Physics and/or Chemistry; III. (a) English essay and precis writing, (b) Holy Scripture (a Gospel or the Acts of the Apostles), (c) English History.

Candidates must pass in at least two of the languages in Part I., including (a) or (b), in II. (a) and either II. (b) or II. (c), and in III. (a) and either III. (b) or III. (c). The parts may be taken separately.

Natives of Asia or Africa, not being of European descent, may offer English literature in lieu of one of the languages [other than (a)] in Part I., and Arabic, Chinese, Sanskrit, or Pali, in lieu of I. (a).

<sup>\*</sup> In and after 1932, provided that candidates also hold a First School Certificate.

Exemption, complete or partial, is obtainable under certain conditions by means of School Certificates, Matriculation Certificates, etc. (see below); Higher (School) Certificates; Certificates of Graduation at any Univ. in Great Britain, except Reading; Certificates of the Navy, Army, and Air Force Entrance Examn. and the Dartmouth Passing Out Examn.; certain Indian, U.S.A., Egyptian, Palestinian, and other Foreign Certificates (see Appendix XXI.).

Matriculation Certificates, etc. Certificates of approved examns. (see below) give exemption from the whole Previous Examn., for passes in Latin or Greek, in a subject of Schedule A (see below), in English, and in a fourth subject; from all but Latin or Greek, for passes in a language other than English or Latin or Greek, in a subject of Schedule A, in English, and in a fourth subject; from Part I., for passes in Latin or Greek, and in a second language other than English; from Part II., for a pass in a subject of Schedule A; from Part III., for a pass in English.

Schedule A comprises Maths., Elem. Maths., Higher Maths., Mechanics, Physics, Chem., Physics-and-Chemistry, Gen. Sci., Biol.,

Bot., Zool., and Nat. History.

The approved examns. and certificates are Oxford Responsions; the Matriculation Examns. of T.C.D., Belfast, Durham, N.U.I., London, Wales, Birmingham, Leeds, Liverpool, Manchester, Sheffield; Preliminary Examn. of the Scottish Univs.; Northern Ireland Senior Certificates; Matrn. Examns. of Univs. of Dalhousie, McGill, Manitoba, New Brunswick, New Zealand, Queensland, Saskatchewan, Sydney, Toronto, and the S. African Univs.; examns. normally recognized for purposes of matrn. by the Univs. of Adelaide, Alberta, British Columbia, Melbourne, Queen's (Kingston), Ontario, Tasmania, W. Ontario; and examns., subsequent to matrn., held by any of these Univs.

School Certificates of bodies approved by the Board of Education give similar exemption to the above, and certain addnl. exemptions: but the standard for exemption by a School Certif. is a pass with credit.

Exemption is also given to Commissioned Officers of H. M. Forces who are resident in Cambridge under the orders of the Naval, Military, or Air Force Authorities.

#### (d) DURHAM

Durham Division. A Matriculation Examn. is held for admission to the Durham Colleges only, but it admits as formerly to degree courses in Arts, Theol., and Pure Science in the Univ. Candidates will be re-

quired to pass as follows:

For students in Arts or Theology. Five subjects, one at least being chosen from each of the following groups: (a) Modern Hist., English. (b) Maths. (or Logic), Chem., Physics. (c) Latin, Greek. (d) French, German, Italian, Spanish, Arabic, Ancient Hist., Addnl. Maths., Geog., Botany, Religious Knowledge (incl. Greek Testament), or any of the other subjects not already offered under (a), (b), (c), provided that Logic be not offered with Maths.

Candidates who propose to read for the degree of B.A. are reminded that for the First Year Examn. for the degree of B.A., two languages, one of which must be an ancient lang., are required, and that the First

Year courses in Latin, Greek, and French assume a knowledge of the

lang, in each case up to Matricn, standard.

For students in Science. Five subjects, one being chosen from each of the following groups: (a) Modern Hist., English. (b) A foreign lang. ancient or modern. (c) Maths. (d) Physics, Chem. (e) Latin, Greek, French, German, Italian, Spanish, Ancient Hist., Geog., Botany, Religious Knowledge (incl. Gk. Testament), or any of the subjects in (a), (b), (d) not already offered.

The following are recognized for exemption from this examn.: (i.) graduation in any Univ. in the United Kingdom or other Univ. recognized by the Matriculation Board; (ii.) subject to certain conditions, Higher School certificate, School certificate with credit in not less than 5 subjects [other than Religious Knowledge and subjects in Group D], Matriculation examn. of any Univ. in Great Britain or Trinity College, Dublin, Oxford Responsions, Cambridge Previous; (iii.) Scottish Leaving Certificate, higher or honours grade; (iv.) Army Special Certificate; (v.) Irish Free State Leaving Certificate; (vi.) Intermediate of Indian Univs.; (vii.) Newfoundland Certif. of Jnr. Associated Grade of the Council of Higher Education; (viii.) Palestine Matriculation Certificate (under conditions, see App. XXI.); (ix.) Holders of Durham Colleges Entrance Scholarships.

College of Medicine. For matriculation in the College of Medicine the following are recognized: I. (i.) graduation in Arts or Science in a Univ. of the British Empire; (ii.) certain of the School (with credit) and Higher School certificates, the Scottish Leaving Certificate, and Matriculation examns. of Univs. in Great Britain and Ireland, provided the candidate produces evidence that the examn. has been passed in such manner as to obtain the Certificate of the Examining Body, and further that credits have been obtained in English, Maths., and in 2 of the 3 other required subjects. The Palestine Matricn. Certif. is accepted for

exemption purposes under certain conditions.

Armstrong College. For admission to Armstrong College a candidate must hold a certificate of a recognized examining body, viz.: certain of the School Certificate Examns., the Scottish Leaving Certificate Examn., and Matriculation Examns. of Univs. in England. In addition, he must have reached the required standard in a certain number of subjects, the number depending upon whether he qualifies on one or on two examns. A candidate who wishes to read for a degree in Arts must have obtained a qualification in Latin, and one who wishes to read for a degree in Science, a qualification in Mathematics. A candidate. however, who intends to offer in his degree any of the subjects, Mathematics, Physics, Engineering, Electrical Engineering, or Naval Architecture, must reach a higher standard in Mathematics in his qualifying examn, than is required of other candidates.

Candidates of more than 23 years of age whose native language is English may be admitted on producing satisfactory evidence of educational attainments.

In special circumstances a special entrance examination may be taken by candidates who have been engaged in technical pursuits for 2 years approximately, and propose to study Engineering, Naval Architecture, Mining, Metallurgy, or Agriculture. The subjects of the Examn. (held in Sept.; after 1932 in July) are: English, a modern foreign language, Elem. Maths., two other selected subjects.

In special circumstances not provided for above, candidates may

apply for exemption from ordinary requirements.

#### (e) London

The University conducts 3 examns. qualifying for matricn.: (1) the ordinary Matricn. Examn., (2) the General School Examn., (3) the Special Univ. Entrance Examn. As regards (2) and (3), see pp. 122 and To pass (1), a candidate must at one and the same examn. satisfy the examiners in English, Elementary Maths., and 3 of the following: (a) Latin, (b) Greek, (c) Botany, (d) Chem., (e) Heat, Light, and Sound, (f) Mech., (g) Elect. and Magnetism, (h) General Biol., (j) French, (k) German, (1) Italian, (m) Russian, (n) Spanish, (o) Welsh, (p) New Testament Greek, (q) another approved language, (r) History—Roman, or Greek, or English, or European, or of the British Empire, (s) Geog., (t) Logic, (u) Drawing—geometrical and mechanical, (v) Maths.—more advanced, (w) Zool., (x) Geol., (y) Music—theory, (z) Econ., (aa) Religious Knowledge. One of the 8 subjects (a) to (h) must be included, and one of the subjects offered must be a lang, other than English. Candidates may present two special oriental langs. under certain conditions. At the Intermediate Examn. in Arts it is compulsory to offer (a) or (b), whether taken at the Matricn. examn. or not. Law students are advised to offer (a) and English History at their Matricn. Examn. Candidates should obtain Regulations from the Secretary, the Matriculation and School Examinations Council, University of London.

Exemption may be obtained by (1) graduates of approved Univs. and persons who have passed all examns. required for a degree in those Univs.; (2) subject to certain conditions, among them the passing with credit in five subjects at one and the same examn., persons who have passed the examns. numbered 7, 8 (b), 9, 10, 11, 12, 13, 14 (a); (3) subject to other conditions persons who have passed examns. 2, 6, 8 (a), 15;

(4) holders of certain Overseas Certs. See Appendix XXI.

# (f) Oxford

Responsions comprises: I. (a) Latin, (b) Greek; II. (a) English, (b) French, (c) German, (d) Italian, (e) Spanish; III. (a) Maths., (b) Natural Science. To pass, a candidate must have satisfied the examiners either in both subjects from Group II. and in both subjects from Group III., or in at least one from each group and in 4 subjects in all; he must also have passed in 2 languages other than English, and either have passed in all 4 subjects at one examn. (in which case special merit in one or more subjects may compensate for comparative weakness in any one) or in 3 at one examn. and in a fourth at a subsequent examn.

Exemption may be obtained: A. by persons accepted for admission as Service Students or Imperial Forest Service Students or Special Students or affiliated Colonial, Indian, or Foreign Senior or Junior Students, or as candidates for the Degree of B.C.L. under certain

conditions, or as Advanced Students, or as candidates for the Degree of B.Litt. or of B.Sc., or who hold a degree at another Univ., such degree and such Univ. having been approved by the Hebdomadal Council, or as students of mature years recommended by the Delegates for Extramural Studies under certain conditions.

B. subject, *inter alia*, to passing in 2 languages other than English, of which either Latin or Greek shall be one, persons who have passed a School or Higher School Certificate Examn. (7, 8, or 13) or gained a class in the Final Senior Freshman Examn. of Dublin or a Scottish Preliminary Examn. Certificate, or passed any of the examns. numbered 2, 3, 4, 5, 6, 15, or the Northern Ireland Senior Certificate, or the Intermediate Arts or higher examn. of Birmingham, Durham, Leeds, Liverpool, London, Manchester, Sheffield, or Bristol.

Exemption from Responsions will be granted to any Palestinian student holding a scholarship from his Govt. to enable him to pursue a course of study at the Univ., provided he holds the Matricn. Certif. of the *Palestine Board of Higher Studies*, showing that he passed with credit in English (Syllabus A), and in one of the languages, Latin, Greek, French, German, Arabic, or Hebrew (Syllabus A).

#### (g) READING

Matriculation, minimum age 17, is open to (a) graduates of Univs. in the United Kingdom or other approved Univs.; (b) persons who have passed or obtained exemption from the matriculation examn. of the Univ. of London or of the Nothern Univs. Joint Board (v. supra), or have satisfied the conditions for such exemption; (c) persons who, being at least 25 years of age, have passed a special examination held by the Univ. "for approved candidates of mature years." In exceptional circumstances the Senate may accept other evidence of previous education and attainments.

## (h) WALES

The Matriculation Examn., the passing of which is a condition of matriculation for students of the constituent Colleges who have not passed an equivalent examn., is held at each of these Colleges about the end of Jan. and the end of June each year. The subjects are (a) English, (b) Welsh Lang. and Lit., (c) Latin, (d) Greek, (e) Welsh, (f) French, German, other approved languages, (g) History, (h) Scripture, (f) Music, (f) Art, (h) Maths., (f) Geog., (m) Mechanics, (f) Physics, (f) Chem., (f) Bot., (f) Geol., (f) Geol., (f) General Sci. A candidate must pass at one and the same examn. in 5 subjects, including (f) or (f)0, (f)1, (f)2, (f)3, at least one language [and not more than two unless both (f)3 and (f)6 are offered] in addition to English or Welsh Lang. and Lit., and either (f)8 or one of (f)9 to (f)9 and (f)9, or both (f)9 and (f)9, or both (f)9 and (f)9, or both (f)9 and one of (f)9 to (f)9.

Examinations recognized as equivalent subject for subject: (a) The Matricn. examns. of London, of the Northern English Univs. Joint Board, or of Dublin, or the Preliminary Examn. of the Scottish Joint Board; (b) School Certificate Examns. (except Durham's), the Leav-

ing Certificate (Higher Grade) of the Scottish Education Dept., the Senior Certificate of the Ministry of Education for Northern Ireland, and the Leaving Certificate of the Intermediate Education Commissioners of the Irish Free State (with credit at one and the same examn. in each of the subjects required by the Welsh matricn. regulations). A pass in a "First Examn." in Music gained before 1925 will not count for exemption, nor will other passes before July 1, 1924, except in accordance with conditions for exemption then in force.

The Palestine Matriculation Certificate is accepted as equivalent to the Matricn. Examn. of the Univ. subject to certain conditions (see App. XXI.).

Candidates of 23 or more years of age may be exempted on the special recommendation of a constituent College.

Candidates of not less than 20 years of age who have been full-time pupils of an approved adult school during not less than 2 yrs. may pass the matricn. examn. in 4 subjects provided they satisfy the authorities of the adult school in a fifth subject.

Candidates for Diplomas of the constituent Colleges who are not less than 20 yrs. of age and who have been for at least 1 yr. a full-time student at a constituent Coll. may pass the matricn. examn. in 4 subjects provided that they satisfy the const. Coll. in a fifth subject.

## (i) Scottish Universities

Qualifications for admission to degree courses in Scottish Universities

I. Scottish Education Dept.'s Group Leaving Certificate showing passes (including at least two on the Higher Standard) in at least 4 of the following subjects: (i.) English (including Literature and History); (ii.) Maths., Dynamics, Physical Sci.; (iii.) Latin, Greek, French, German, Italian, Spanish, Gaelic; (iv.) Nat. Sci., Art, Music, Applied Sci. Provided (a) the passes must include one from each of the groups ii. and iii.; (b) unless they include three on the higher standard the Certificate must show either (1) passes in Latin (or Greek) and in Maths., or (2) a pass on the Higher Standard in Latin (or Greek) or in Maths., and all the four passes must be in subjects taken from groups (i.), (ii.), and (iii.).

II. Other certificates affording evidence of a satisfactory secondary education on lines above specified.

III. Examination under the Entrance Board in 4 subjects selected from the following, including at least one from each of the first 3 groups: (i.) as under Clause I.; (ii.) Maths., Physical Sci.; (iii.) as under Clause I., or other approved language; (iv.) Nat. Sci. (any 2 of Chem., Bot., Zool., Geog.). Proviso (b) applies, and candidates are ordinarily required to reach the pass standard in English. The only subjects in this examination in which lower standard passes can be obtained are Latin, Greek, and Maths. The examn. in Nat. Sci. is held only in Sept. Candidates submitting both Physical and Nat. Sci. may select questions in the Chemical Section of one only of these branches.

Examinations recognized in the case of applicants from outside Scotland: (a) Oxford Responsions; (b) Cambridge Previous; (c) any

School or Local Examns. conducted under the auspices of the Univ. of Oxford or Cambridge which are accepted as exempting from (a) or (b) respectively; (d) London matriculation examn. A candidate who has been educated chiefly in England, or Wales, or Ireland, and who has such qualifications as would admit him to a Faculty in a Univ. in one of those countries, will be exempted from the Preliminary examn. See also Appendix XXI.

## Special Regulations for Entrance to Faculties

ABERDEEN. In the case of Greek, Hebrew, Arabic, Syriac, and Mathematics, a student shall be admitted to attendance on the classes qualifying for graduation if he has the subject of the class as one of the subjects either of his Group Leaving Certificate or of the University Preliminary Examination. Where a student desires to attend a course qualifying for graduation and does not satisfy the above condition, he shall intimate to the Secretary to the University of Aberdeen not later than one week before the commencement of the class, and a written examination or other test will be provided to determine his fitness to attend the class.

EDINBURGH. Certain preliminary passes are required for entrance to certain classes. If a student intends to take a curriculum containing a class which requires a special qualification, it is desirable that he should have included this qualification in his Leaving Certif. (or its equivalent), but failing this he may take the subject in the Univ. Preliminary Examn.

GLASGOW. I. For the following classes, namely: Latin, Greek, French, German, Italian, Spanish, Russian, Hebrew, Arabic, Celtic (ordinary in each subject), attendance shall not normally qualify for graduation unless before admission to the class the student has produced evidence that for the Entrance Certif. or otherwise he has passed in the subject of the class on the Higher Standard (where different grades exist), or that he has diligently attended in a previous session a non-qualifying course in that subject; but the Head of the Dept. shall have power to accept as equivalent such other evidence of fitness to profit by attendance on the class as he may deem sufficient.

II. For the following classes, namely: English (Higher Ordinary or Hons.), French (Higher Ord. or Hons.), German (Higher Ord. or Hons.), Italian (Higher Ord. or Hons.), Spanish (Higher Ord. or Hons.), Hebrew (Higher Ord.), Celtic (Hons.), Hist. (Higher), Hist. (Hons.), Scottish Hist. and Lit. (Hons.), Constitutional Law and Hist. (Higher Ord.), attendance shall not normally qualify for graduation unless before admission to the class the student has produced evidence that for the Entrance Certif. or otherwise he has passed in Latin or Greek on the Higher or the Lower Standard; but the Fac. of Arts shall have power to accept as equivalent such other evidence of fitness to profit by attendance on the class as they may deem sufficient.

III. For the following classes, namely: Maths. (Ord.), Maths. (First Course for Engineers), Nat. Philos. (Ord.), Applied Physics (Ord.), Astronomy (Ord.), attendance shall not normally qualify for graduation

unless before admission to the class the student has produced evidence that for the Entrance Certif. or otherwise he has passed in Maths. on the Higher Standard, or that he has diligently attended a non-qualifying course in that subject; but the Head of the Dept. shall have power to accept as equivalent such other evidence of fitness to profit by attendance on the class as he may deem sufficient.

IV. For the following classes, namely: Logic (Hons.), Moral Philosophy (Hons.), attendance shall not normally qualify for graduation unless before admission to the class the student has produced evidence that for the Entrance Certif. or otherwise he has passed in Latin or Greek on the Higher or Lower Standard, or in Maths. on the Higher Standard; but the Fac. of Arts shall have power to accept as equivalent such other evidence of fitness to profit by attendance on the class as they may deem sufficient.

V. For the following class, namely: Civil (or Roman) Law, attendance shall not normally qualify for graduation unless before admission to the class the student has graduated in Arts, or has produced evidence that for the Entrance Certif. or otherwise he has passed in Latin on the Higher Standard; but the Head of the Dept. shall have power to

accept as equivalent such other evidence of fitness to profit by attendance on the class as he may deem sufficient.

VI. For the following classes, namely: Hebrew (Hons.), New Testament Greek (Biblical Criticism, Junior), attendance shall not normally qualify for graduation unless before admission to the class the student has produced evidence that for the Entrance Certif. or otherwise he has passed in Greek on the Higher or Lower Standard, or that he has diligently attended a non-qualifying class in Greek; but the Head of the Dept. shall have power to accept as equivalent such other evidence of fitness to profit by attendance on the class as he may deem sufficient.

VII. For the following class, namely, Hebrew (Junior), attendance shall not normally qualify for graduation unless before admission to the class the student produces evidence to the Head of the Dept. that he possesses a sufficient knowledge of Elementary Hebrew Grammar.

VIII. For the following class, viz., Music (ordinary), attendance shall not normally qualify for graduation unless before admission to the class the student has (a) passed in Music on the higher standard in the Leaving Certif. Examn., or (b) attended and satisfactorily performed the work of the elem. class; but the Head of the Dept. shall have power to accept such evidence of proficiency in Music as he may deem equivalent.

St. Andrews. In the Faculty of Arts, students who propose to attend a graduating course in Latin or Greek, or Hebrew, or French, or German, must produce evidence of having passed the Leaving Certificate Examn. in the language on the Higher Standard or some equivalent qualification, or must (in the case of Latin and Greek) have attended a Junior Class in the Univ. and duly performed the work of that class for one session. Students who wish to attend a graduating course in Maths., Applied Maths., or Nat. Philos. must show that they have passed the Leaving Certif. in Maths. on the Higher Standard or obtained some equivalent qualification.

3 B

In the Faculty of Science, the above rule applies to the classes of Maths., Applied Maths. and Nat. Philosophy.

## (j) BELFAST

The Matriculation Examn. comprises English, Mathematics, and 3 of the following: (a) Greek, (b) Latin, (c) French, (d) German, (e) Italian, (f) Spanish, (g) Modern History, (h) Physics or Mechanics, (f) Geog., (k) Chem., (l) Bot., (m) for Faculties of Arts, Commerce, Applied Science, and Technology—Celtic, (n) for Science, Medicine, or Applied Science or Technology—Mechanical Drawing; for Commerce—(o) Elementary Economics, and (p) Accounting; for Faculty of Arts (g) Music. For Arts, Science, or Medicine one language other than English must be taken; for Commerce—French or German or Spanish; for Applied Science or Technology—one of the languages (a)-(f).; for Faculty of Law—Latin. Candidates for Faculty of Arts may, under certain conditions, take Latin or Greek instead of Maths.

Candidates for Faculty of Arts who intend to enter an Honours

School must pass in Greek or Latin at Matricn.

Candidates for the Faculty of Medicine must have passed an examn. in Latin of at least Junior Certificate (Northern Ireland) Standard.

For Engineering students there is a special Matrica. Examn. comprising English, Maths., Further Maths., Greek or Latin or French or German or Italian or Spanish, Physics or Chem., Mod. Hist. or Geography.

A candidate who has passed in at least 3 subjects, but failed to pass the examn. as a whole, is allowed to complete his matricn. at the next

subsequent examn.

For exemption the Univ. recognizes: 1. graduation in a British Univ.; 2. the Final Junior Freshman Examn. of Dublin, provided the candidate has passed in the subjects required by Belfast and, in the case of medical students, the subjects required by the G.M.C.; 3. for entry to any faculty the candidate would have been entitled to enter in the Univ. whose examn. he has passed—the examns. numbered 1, 2 (Parts I. and II.), 3, 5, 6, 13, or the examn. of the Scottish Univs.' Entrance Board; 4. subject for subject—the examns. 8 (a), 8 (b) (with credit at one and the same examn. in four subjects), 9, 10, 11, 15 (Higher or Honours), and certain others.

Students of mature age (not less than 23) may be admitted without passing the ordinary Matricn. Examn. Applications are dealt with by a special committee of the Academic Council, who may submit such candidates to such tests of their fitness to profit by the courses of the Univ. as they may consider necessary in each case.

## (k) DUBLIN

The Matriculation Examn. in Arts, held five times a year, comprises English Composition, Mathematics, English History, Modern Geography, Latin, and one of: Greek, French, German, Italian, Spanish, Irish.

The Matriculation Examn. in Science comprises English, Mathe-

matics, French or German, and one other language.

Exemption, partial or complete, may be obtained by candidates who hold the leaving certificate of the Department of Education, or any other examn. regarded by the Senior Lecturer as equivalent thereto.

#### (1) NATIONAL UNIVERSITY OF IRELAND

The Matriculation Examn., held twice a year, comprises six groups of subjects: (a) Irish, (b) Latin or Greek, (c) any modern language approved by the Senate, (d) English, (e) Maths., (f) Latin, Greek, any modern language approved by the Senate, Hist., Geog., Applied Maths. or Physics, Chem., Agric., Commerce, Music, Bot., Physiol., and Hygiene (for women candidates only). Candidates must pass in 5 subjects, but may present in 6, if they so desire.

Those born in Ireland, whose home residence has not been outside Ireland during the 3 preceding years, must pass in Group (a). Others may present in lieu of Irish either a second language or a second Science subject; they will be expected to attend a course in Irish Lit. and Hist. before obtaining a degree in the Univ. Students entering for Degrees in (1) Arts, Philosophy, and Celtic studies, (2) Law, (3) Med. or Dentistry, (4) Science, Commerce, Agric., Dairy Science, (5) Eng., must take: (1) subjects in groups (a), (b), (d), (e), (f); (2) Latin, and subjects in (a), (d), (e), (f); (3) Latin, (a), (a), (e), and a fifth subject, but if already registered by the G.M.C., students may take the subjects prescribed for any other faculty; (4) or (5) one from each of (a), (d), (e), and two others from (f).

Exemption. Passes in the Senior Grade of Intermediate Board or the Leaving Certificate Examn. in any of the subjects recognized for matricn. are accepted as equivalent to passes in these subjects at the Matricn. Examn. even though the former examn. was not passed as a whole. Provided that the subjects required have been passed, the Univ. accepts the following in lieu of their own Matricn. Examn.: the examns. numbered 1, 2 (Parts I. and II.), 3, 5, 6, 8 (a), 9, 10, 15 (Higher), and the Scottish Prelim. Examn.

# XXI

# ADMISSION AS UNDERGRADUATES OF THE UNI-VERSITIES OF GREAT BRITAIN AND IRELAND OF PERSONS EDUCATED ABROAD

The following notes relate to the admission of students from other countries proposing to take full courses for a First degree, excluding from consideration those who seek admission with advanced standing on the ground of having already pursued courses in other Univs.\* and those who seek only to study without aiming at a degree.

A comparison of the regulations of the several Univs. in question governing admission of such students discloses a general agreement in

principle, with divergencies in application.

The regulations are drafted on the understanding that the application to a student educated in another country of the ordinary entrance tests might be inappropriate owing to these tests having been framed with reference to secondary education curricula different from those which obtain in his own country, or to the student having reached a stage in his education at which the passing of ordinary entrance tests would involve a wasteful repetition of preparatory studies. They accordingly provide for the acceptance from such a student of other evidence of academic qualifications: ordinarily certifs, which would entitle to admission to a Univ. in the student's own country, together with such further evidence as may be necessary to ensure that no student shall be admitted to a course of study for a degree without a reasonable prospect of his being able to pursue it to graduation; in particular, if the student be one whose mother tongue is not English, evidence that he has a sufficient mastery of this language to enable him to follow courses of instruction conducted in English.

The lines along which this policy has been applied in the several

Univs. may be briefly indicated as follows:

At Oxford and Cambridge "Responsions" and the "Previous" Examn. respectively take the place of the Matriculation Examn. of other Univs. An Adviser to Colonial and Foreign Students is attached to the Univ. Registry at Oxford, and there is an Adviser to Indian Students at Cambridge.

Exemption may be obtained, not only from Responsions (and also the Examn. in Holy Scripture) or the Previous Examn., but also from the Entrance Examns. of the other Home Univs., by passing the Oxford or Cambridge School Certificate Examns., which are held in various parts of the British Empire overseas.

Oxford Responsions. Exemption may be granted to any person who has obtained (1) a certificate of having passed either (a) the matricula-

\* A résumé of Regulations regarding such concessions is given on pp. 16-18.

tion examn. of the Joint Board of the South African Universities, or (b) the Secondary School Certificate Examn. of the Education Dept. of the Transvaal or (Senior Certif.) of the Cape Province, provided that it shows that he has obtained at least 60 p.c. in each of two of the languages Latin, Greek, French, German, Italian, Spanish, of which Latin or Greek must be one: or

(2) A certificate or certificates of having passed one of the following, provided he has satisfied the examiners in two of the said languages,

of which Latin or Greek must be one:

Univ. of McGill Matricn., or First Year in B.A. course; Ontario Educn. Department's Middle School Examn.; Univ. of Toronto Senior Matricn., or First Year; Council of Higher Education, Newfoundland, Sen. Matricn.; Brit. Columbia Sen. Matricn., Brit. Columbia Jun. Matricn. (60 per cent in each of the two cases);

Univ. of Adelaide Public (Leaving); Univ. of Melbourne School Leaving (Class B); Univ. of Tasmania Public Leaving; Univ. of W. Australia School Leaving; New South Wales Educn. Department's Leaving Certif.; Univ. of Sydney Matricn. (the two necessary languages at the Higher Standard); Univ. of Queensland Sen. Publ. Examn.;

New Zealand Matricn. or Entrance Scholarship;

Univ. of Malta Matriculation;

Univ. of Hong-Kong Senior Local;

Part I. of the Baccalauréat de l'Enseignement Secondaire in France: or

(3) A certificate or certificates qualifying him for admission to a univ. in Austria, Belgium, Czecho-Slovakia, Denmark, Finland, France, Germany, Holland, Hungary, Italy, Norway, Poland, Sweden, Switzerland, or Yugo-Slavia, provided it shows that he has satisfied the examiners in either Latin or Greek; also to any person who has obtained the degree of B.A. or B.Sc. at an approved Indian Univ., provided that his course included the study of English and one of the languages, Latin, Greek, French, German, Sanskrit, Arabic, Persian, Pali, Classical Chinese. Government scholars from Palestine holding the Palestine Matricn. Certificate subject to certain conditions are also exempted from Responsions (see App. XX.).

Cambridge Previous Examn. A graduate of an "Associated Institution" who has been a member of it for 3 yrs. is entitled to the privileges of an Affiliated Student at C., including exemption from the whole of the Previous Examn. The "Associated Institutions" are: (1) all the Univs. of Great Britain and Ireland, and St. David's College, Lampeter; (2) in Canada—Alberta, Br. Col., Dalh., McGill, Manit., New Bruns., Queen's, Sask., Tor., Western Ontario; (3) in Australia—all; (4) New Zealand; (5) Hong-Kong; (6) in S. Africa—all; (7) in India—All., Bom., Calc., Dacca, Lucknow, Madras, Panj., Patna, Rangoon; (8) in U.S.A.—the 27 institutions belonging to the Assocn. of American Univs. (see Appendix XXVI. p. 852), and the following institutions of complex organization: Amherst Coll.; Bates Coll.; Bost. Univ.; Bowdoin Coll.: Brown Univ.; Bryn Mawr Coll.; Cinc. Univ.;

Colorado Univ.; Dartmouth Coll.; Georgetown Univ., D.C.; Haverford Coll., Penn.; Mass. Inst. of Tech.; New York Univ.; Pittsburgh Univ.; Radcliffe Coll., Camb., Mass.; St. Louis Univ., Miss.; Smith Coll.; Swarthmore Coll.; Tex. Univ.; Vand. Univ.; Vassar Coll.; Wash. (Seattle) Univ.; Wellesley Coll.; Western Reserve Univ.; Williams Coll.

For exemption by means of examns. held or recognized by Univs. of Canada, Australia, New Zealand, and S. Africa, see Appendix XX.

A candidate who has obtained a 1st class in the Intermediate Examn. in Arts or Science, or a 1st or 2nd class in the examn. for the B.A. or B.Sc. in an approved Indian Univ., is exempted from the Previous Examn., provided that in some examn. leading up to the B.A. or B.Sc. in that Univ. he has passed in Arabic, Persian, Persian-with-Arabic, Sanskrit, or Pali, in Maths. or Science, and in English. Univs. approved for the purposes mentioned in the preceding paragraph are approved with reference to this paragraph also, together with the Univs. of Agra, Andhra, Aligarh, Benares, and Nagpur.

A candidate who has obtained a First Class in the Intermediate Examn. held by the Board of High School and Intermediate Education of the United Provinces of India, or by the Board of High School and Intermediate Education, Rajputana, Central India, and Gwalior, or in the Intermediate Examn. of the Board of Intermediate or Secondary Education, Dacca, is exempted if either in this examn. or the High School Examn. which leads up to it he has passed in a classical language,

in Maths., in English, and in History or Geography.

A student who has either (a) passed the examn. of the Coll. Ent. Examn. Bd. for admission to a Univ. or Coll. of the U.S.A., or (b) qualified for admission to a Univ. or Coll. of the U.S. which is an "Associated Institution"; and in the Bd.'s examn., or in examns. conducted by the Assoc. Inst., or partly in one and partly in the other, has obtained the requisite units (or an equivalent standard), may be exempted from Part I., for 4 units in Latin or Greek, and 3 units in a second language other than English; from Part II., for 3 units in Maths. or Sci., or partly in Maths. and partly in Sci.; from Part III., for 3 units in English.

The holder of a certificate qualifying him for admission without further examn. into the Univ. of any European State may be exempted from Part I., if the certificate includes two languages, other than his mother tongue, of which one is Latin or Greek; from Part II., if it includes Mathematics or Science; from Part III., if it includes a modern language, which may be his mother tongue, other than that used for

exemption from Part I.

Holders of the Egyptian Government Secondary Education Certif. who are not of European parentage are exempted from Parts II. and III., and also from Part I. provided that in one at least of the two

examns, for the Certificate they have passed in French.

A student of non-European descent who has been awarded a scholarship by the Govt. of Palestine for study at Cambridge is exempted if he is a B.A. of the American Univ. of Beirut and if the examns. leading up to his degree include English, Maths., or Science, and one of the languages Greek, Latin, French, German, Arabic, Hebrew. The holder of a Matriculation Certificate of the Palestine Bd. of Higher Studies who is not of European parentage is exempted from Part I., if he has passed in two languages other than English, whether taken in Group I. or Group IV.; from Part II., if he has passed in Elementary Mathematics (Group IV.), and in one of the following sciences of Group V.: General Physics; Additional Maths.; Mechanics and Hydrostatics; Heat, Light, and Sound; Elect. and Magnetism; Chem.; from Part III., if he has passed in English either in Group I. or in Group IV. In a particular case subjects passed in the Interm. or the Final Examn. for the Arts and Science Dipl. of the Bd. may be approved for exemption in lieu of corresponding subjects in the Matriculation Examn.

London. Arrangements may be made for holding the London Matriculation Examn. in the Colonies and Self-Governing Dominions upon the application of the Local Governments. Full information may be obtained from the Secretary, The Matriculation and School Examinations Council, University of London.

Exemption from the Matriculation Examn. is granted to graduates of certain approved overseas Univs. (see pp. 114-15). No other foreign certifs, are accepted as giving exemption, but the following are recognized for exemption purposes, provided that the student has passed at one and the same examn. in English, Maths., and three other prescribed subjects, of which one must be Latin or Greek (Cape of Good Hope—Latin) or a Science: Adelaide Matriculation (Senior Public) Certificate, Melbourne School Leaving Certificate, Western Australia School Leaving Certificate, Secondary School Senior Certificate of the Department of Public Education, Cape of Good Hope, Transvaal Secondary School Certificate.

Matriculation may also be obtained by two classes of candidates through the Special University Entrance Examination, viz.: I. Persons aged 19 yrs. or over holding (a) Certifs. of Matricn. in Colonial and Dominion Univs., or (b) Indian or Foreign Certifs. from an academic or other educational authority which in the opinion of the Principal indicate a standard equivalent in their own country to that required for matricn. in this Univ. The Palestine Matricn. Certif. is included under this head. II. Persons over 23 yrs. of age. The Examn. is usually held in March, May, Sept., and Dec., and consists of 4 subjects, of which English and either Maths. or Logic are compulsory. All candidates must attend in London for both the written part (which lasts  $1\frac{1}{2}$  days) and the oral part of the examn. No syllabus is published. The fee is 5 gs. Detailed regulations on application to the External Registrar, University of London.

The Northern (English) Universities Joint Board. Subject to Special Regulations for Entrance to particular Faculties, exemption from the Matriculation Examn. is granted to a student who holds the Secondary Education Certif. of the Egyptian Ministry of Education, or the Palestine Matriculation Certif. which shows a pass in English, Syllabus A, and does not include Geography as one of the six subjects required in that examn., or has passed at one and the same examn., the Interm. Examn. in Arts, Sc., or Med. of an approved

Indian Univ., and generally to candidates holding the Matricn. Certif. of a recognized Univ. of the Empire, provided that the choice of subjects fulfils the Board's requirements, and that all the subjects were passed at one and the same examn., and may, at the discretion of the Board, be granted to "applicants holding certifs. of having passed examns. of a standard at least equal to" that required for matricn. in England. The procedure at Liverpool is as follows: The Senate, after report from the Faculty concerned, shall, before registration, determine whether the applications of foreign, Egyptian or Indian students shall be accepted. Applications for registration from such students shall be received before Oct. r in each year, and shall be accompanied by detailed references certifying as to character and educational qualifications. Leeds receives applications from persons resident outside the United Kingdom up to June 30.

Durham. Foreign students may matriculate provided they satisfy the Matriculation Board that they have passed an examn. elsewhere of a standard deemed sufficient for matriculation, and that they have sufficient knowledge of English to profit by the proposed course of

study.

Durham Colleges: Graduates of Univs. in the U.K. or of other approved Univs. are admitted without further examn. A candidate educated elsewhere than in Great Britain may matriculate if he has passed examns. deemed by the Matricn. Board to be sufficient. The Palestine Matriculation Certif. is accepted for exemption provided the conditions as to the grouping of subjects for the Matricn. Examn. are observed (see App. XX.), and that five credits or their equivalent have been obtained. Students in Codrington College, Barbados, and Fourah Bay College, Sierra Leone, may matriculate (and qualify for degrees) locally.

College of Medicine: Exemption from the matricn. requirements may be obtained by: (a) Matricn. in the Fac. of Med. of any Univ. in Gt. Britain and Northern Ireland or the Irish Free State, provided that the subjects include those required in the Fac. of Med. of this Univ. and by the General Medical Council for registration of medical students; or (b) Matricn. in the Fac. of Med. of any Univ. in the British Crown Colonies or Dominions, or other approved Univs., provided that the examn. passed satisfies the G.M.C. for registration of medical students; or (c) a degree in Arts or Science of any Univ. in Gt. Britain and Northern Ireland, the Irish Free State, the British Crown Colonies and Dominions, or of other approved Univ.

Students from India and the Malay States may be accepted for matricn. if they have passed certain approved examns. in those countries; copies of the regulations for such students are obtainable from the Dean

of the College.

The Palestine Matriculation Certificate is accepted for matricn. in the Fac. of Med. if it includes a class "A," "B," or "C" in (i.) English, (ii.) Elem. Maths., (iii.) Greek, Latin, Sanskrit, or Persian, (iv.) French or German or other mod. lang. specially permitted, (v.) one of the following: Ancient Hist., Mod. Hist., Greek, Latin, French, German (as to the foregoing four, if not already taken), Advanced Maths., Mechanics,

Experimental Science, Chem., Physics, Bot., Zool., Biol., Geog. In subjects (iii.), (iv.), and (v.) one class "D" is accepted. The whole examn. must be taken at not more than two sittings. Candidates for admission to the Durham Coll. of Med. are submitted to an oral examn. in English before exemption is granted.

Armstrong College: Foreign or Colonial students must produce evidence that they have passed in their own country an examn. of the requisite standard, and in approximately the same subjects as would have been required had they taken one of the recognized examns.; and further, in the case of foreign students, that they have sufficient proficiency in English to enable them to follow a course of study with profit.

For Indian students no qualification lower than that of the Intermediate Examn. of an Indian Univ. will be considered, except that holders of the Diploma of the Roorkee College will be considered on their merits. Candidates proposing to proceed to a degree in Applied Sc. (Civil, Mech., Marine or Elect. Eng., Naval Arch., Mining or Metall.), who present the Interm. Certif. of an Indian Univ. must have completed that examn. in Maths., Physics, and Chem. All applications from Indian students must be made through the High Commissioner for India, Education Dept., India House, Aldwych, London, W.C.2.

Bristol. A candidate educated elsewhere than in the U.K. may submit to the Senate evidence of having passed examns. elsewhere equal to the Matricn. Examn. of any Univ. of the U.K., or to any of the other examns. which qualify for matricn. at Bristol; if from an oriental country, he may submit evidence of previous education in his own country and of ability to follow instruction given in English. The Palestine Matriculation Certif. is accepted for exemption provided it shows a pass in English under Syllabus A, and that the 6 subjects in which the candidate has passed include 5 which conform to the matricn. requirements of the Univ. (see App. XX.). The Senate may thereupon, if satisfied with the evidence, declare him eligible for matricn.

Reading. Exemption is granted to candidates who have satisfied conditions for exemption from the London or the Northern (English) Univs. Joint Board's Matricn. examn.

Wales. Candidates who have qualified by examn. for a degree of an approved Univ. or College, or have passed the Matricn. examn. of the South African Univs. or of the Swiss Univs., or the secondary school certifi. examn. of the Transvaal or Cape Province Education Dept. in the subjects required by the Univ. matricn. regulations, or, if certified by a constituent Coll. as possessing sufficient knowledge of English to profit by a degree scheme of study, the Intermediate Examn. in Arts or Sc. of an approved Indian Univ., may matriculate without further examn. The Palestine Matriculation Certificate is accepted for exemption provided candidates have passed with credit at one and the same time in the subjects required for the Matricn. Examn. of the Univ., and provided that the Pass with credit has been obtained in the A Syllabus of the Palestine Matricn. Examn.

Scottish Universities. Candidates from the British Dominions or Colonies may be exempted from the Preliminary Examn. if they have

passed examns. which would admit them to a course qualifying for graduation in Arts or Science in Univs. or Technical Colleges affiliated to a Univ. in the Dominion or Colony from which they come, provided their knowledge of English is sufficient to enable them to follow the courses of instruction with profit. Those whose native language is other than English are required to pass an examn., oral and written, in English, including set books. Students from India are subject to the further condition that they have obtained a first class in an Intermediate Examn. in Arts or Science in a recognized Indian Univ., and have at some stage of their course passed in Maths. or Science and English.

Certifs. entitling the holder to enter upon a regular course of study leading to a degree in Arts, Pure Sci., or Med. in any of the Univs. or Colls. approved by the Assocn. of American Univs. (see Appendix

XXVI.) are recognized for exemption from the Prelim. examn.

The B. ès L. and B. ès Sc. and similar "certifs. of Maturity or Grades, entitling the holder to enter upon a regular course of study in the Univs. of his own country," are accepted subject to the abovementioned conditions as to knowledge of the English language. Certain Egyptian, Argentine, and Chinese certifs. are also recognized.

The Board has a general dispensing power in regard to applicants

of not less than 21 yrs. of age who satisfy it as to their fitness.

N.B.—In each Univ. the Senatus may for any particular class, attendance on which for a specified period is necessary in order to qualify for graduation, determine the conditions of admission to such qualifying attendance.

A Certificate submitted as proof of title to admission to Univs. abroad should be accompanied by an authenticated declaration by a Government Official or Official of an Agency-General, Embassy, Legation, or Consulate of the country to which the applicant belongs, testifying that it has the alleged value. If in a foreign language, certificates should be accompanied by certified English translations.

Application to the Secretary of the Scottish Universities Entrance Board, 8r North Street, St. Andrews, should be made by all overseas students seeking admission to Scottish Univs.

Belfast. Matriculated students of Univs. outside the British Isles may send written statements and certifs., which should, as a rule, cover all subjects required for matricn. in the Faculty concerned. When a certif. in any subject is not available, other evidence of proficiency may be furnished. The Matricn. Examn. of the Joint Matricn. Board of the Univs. of S. Africa and the Intermediate Examns. of certain Indian Univs. (Alig., All., Ben., Bom., Calc., Dacca, Delhi, Luck., Madras, Mysore, Nagpur, Patna, Panjab, Rang.) are accepted as equivalent, subject for subject, to the Belfast Matricn. Examn. The Secondary School Certif. Examn. of the Transvaal Edn. Dept. and the Matricn. Examn. of the Palestine Board of Higher Studies are accepted, the latter provided the student has passed with distinction in English, and subject to any special requirements of the Fac. he proposes to enter. Graduates of a British Univ. are not required to pass the Matricn. Examn.

Dublin admits students who have passed the Matricn. Examn. of any Univ. in S. Africa including English, Mathematics, Latin, and one other approved language. The Senior Lecturer is empowered to exempt from the Matricn. Examn. students who, in his opinion, have passed in the subjects required at matricn. at a public examn. of equivalent standard. See, however, p. 347 regarding compulsory subjects in Arts course.

National University of Ireland. The Senior Public Examns. of Sydney, Melbourne, Adelaide, Queensland, the Jaffa Gymnasium Maturité, and the Matricn. Examns. of Sydney, Melbourne, Queensland, and New Zealand, and of the Matricn. Board of S. Africa, are recognized as qualifying for exemption from the Matricn. Examn. The Matricn. Examns. of other Univs. in the British Empire overseas (excluding India) are recognized only in combination with an Intermediate Examn. in Arts or Science.

# XXII

# STUDENTS FROM OTHER COUNTRIES IN THE UNIVERSITIES AND UNIVERSITY COLLEGES OF GREAT BRITAIN AND IRELAND

1931-32

Compiled from returns received from all Univs. and Univ. Colls. with the exception of 4 Oxford Colls. (1930, 64 students) and 2 Cambridge Colls. (1930, 66 students).

From Africa 851, America 1117, Asia 1910, Europe 699, The Pacific 288. Grand total 4865. The following analysis of the figures received shows the chief distribution (exclusive of Oxford and Cam-

bridge) of the students from certain countries.

AFRICA. Egypt.—Total 292: Birmingham 32, Leeds 11, Liverpool 32, London Colls. 101 (Univ. Coll. 15, Imperial Coll. 20, Med. Schools 43), Manchester 13, Edinburgh 50. Mauritius.—19: London Colls. 15. Nigeria and West Africa.—59. South Africa and Rhodesia.—465: Liverpool 23, London Colls. 223 (Univ. Coll. 16, Med. Schools 138, Schools of Music 27), Edinburgh 85, Glasgow 11, Dublin 13.

AMERICA. Canada and Newfoundland.—200: London Colls. 77 (Schools of Music 18), Edinburgh 35. South America.—65: London Colls. 36. United States.—694: London Colls. 195 (Univ. Coll. 25, King's Coll. 36, School of Econ. 38), Edinburgh 99, Glasgow 40, St. Andrews 102, Dublin 17. West Indies.—141: London Colls. 51 (Med.

Schools 23), Edinburgh 41.

ASIA. China.—136: London Colls. 63 (School of Econ. 34), Edinburgh 26. India, Burma and Ceylon.—1518: Birmingham 16, Bristol 22, Durham 22, Leeds 54, Liverpool 26, London Colls. 885 (Univ. Coll. 155, King's Coll. 76, Imperial Coll. 136, Schl. of Econ. 96, Schl. of Oriental Studies 67, Med. Schools 182, Polytechnics 61), Manchester 53, Sheffield 50, Edinburgh 97, Glasgow 71. Japan.—33: London Colls. 17 (Schl. of Econ. 10). Malaya.—35: London Colls. 16. Palestine.—72: London Colls. 59. Siam.—34: London Colls. 12.

EUROPE. Austria.—19. Denmark.—22. France.—71: London Colls. 38. Germany.—141: London Colls. 64, Exeter 18. Greece.—32. Holland.—42: London Colls. 19. Hungary.—21. Italy.—24. Latvia.—17. Norway.—33. Poland.—36: London Colls. 22. Roumania.—24. Russia.—35: London Colls. 25 (Schl. of Econ. 9). Spain.—17. Sweden.—15. Switzerland.—49: London Colls. 26.

THE PACIFIC. Australia.—166: London Colls. 69 (Med. Schools 31, Schools of Music 13). New Zealand.—122: London Colls. 57,

Edinburgh 13.

ALL COUNTRIES. Birmingham III, Bristol 47, \*Cambridge 371, Durham 63, Leeds 91, Liverpool 133, London Colls. 2322 (Univ. Coll. 418, King's 175, Imperial 230, Schl. of Econ. 354, Schl. of Oriental Studies 88, Bedford (Women) 31, Med. Schools 595, Schools of Music 101), Manchester 132, \*Oxford 429, Sheffield 81, Edinburgh 532, Glasgow, 185, St. Andrew's 114, Dublin 43.

<sup>\*</sup> See note above.

# XXIII

# POST-GRADUATE SCHOLARSHIPS, ETC., AND GRANTS FOR ADVANCED STUDY AND RESEARCH

#### A. GREAT BRITAIN AND IRELAND

Law.

Music.

Mathematics.

Philosophy.

Modern Languages.

Oriental Languages.

Psychology (v. Philosophy).

- I. General.
- 2. Adult Education.
- 3. Agriculture, Veterinary Science, etc.
- 4. Applied Science and Technology.
- 5. Architecture (v. Art and Archæology).
- 6. Arts (General).
- 7. Arts (Special Subjects).

Art and Archæology.

Classics. English Literature.

Geography.

History. History, etc. (British Empire).

History and Geog. (India).

- 8. Commerce.
- 9. Economics and Sociology.
- Education.
- 11. Engineering (General).
- 12. Engineering (Special Branches).

Engineering, Electrical.

Engineering, Mechanical (v. Engin., General).

Mining and Mining Engineering.

Naval Architecture and Marine Engineering.

- Fisheries and Preservation of Fish.
- Iournalism.
- 15. Medicine and Surgery (General).
- 16. Medicine and Surgery (Special Subjects).

Obstetrics and Gynæcology. Anatomy.

Bacteriology.

Bio-Chemistry (v. 18).

Cancer.

Diseases of Children.

Neurology.

- 17. Science (General).
- 18. Science (Special Subjects).

Bio-Chemistry.

Biology (Animal Morphology).

Botany.

Biometrics. Chemistry.

Mathematics. Metallurgy. Physics.

Pathology.

Tuberculosis.

Preventive Medicine.

Tropical Med. and Hygiene.

Physiology. Zoology.

19. Theology.

#### B. DOMINIONS

23. New Zealand. 20. General. 21. Canada.

24. South Africa.

22. Australia.

25. India.

#### C. MANDATED TERRITORY

26. Palestine.

#### D. FOREIGN COUNTRIES

27. Belgium.

32. Spain.

33. Sweden.

28. France.

34. Switzerland.

29. Germany. Holland.

35. United States of America.

31. Jugo-Slavia.

Information as to the provision made by the several Universities and other learned institutions for the promotion of advanced study and research by the offer of scholarships, fellowships, etc., limited to their own graduates or members, will be found under the heading "Scholarships, etc." in the sections of the Yearbook relating to those Univs. and institutions. Particulars of other aids to British students for advanced work, not so limited, are given in this Appendix.

The assistance given by way of scholarships, etc., by different types of instn., whether Govts., Univs., scientific societies or separate foundations, will be found by reference to the General Index under their several titles.

A comparison of the number and range of scholarships and other provision for research made in the present Appendix with that announced in the corresponding section of last year's Yearbook will show that, under the stress of the present economic conditions, a number of scholarships have been withdrawn. This is notably the case in the announcements of the Ministry of Agriculture and Fisheries, the Colonial Office, and other Govt. Depts.

Auseful List of International Fellowships for Research is pubd. by the International Federation of University Women (q.v.), price is.

#### A. GREAT BRITAIN AND IRELAND

#### GENERAL

THE BRITISH FEDERATION OF UNIVERSITY WOMEN, Crosby Hall, Cheyne Walk, London, S.W.3. International Residential Scholarship at Crosby Hall, value £100 for 1 yr., for research or advanced postgraduate work. Applications to be received before the end of Jan. Further particulars from the Secretary.

British Institute in Paris, 6 rue de la Sorbonne, Paris (V.). Edward Esmond Scholarship, at the rate of £100 p.a. for I yr. or less, with possible renewal beyond a yr. Open to graduates of British Univs. to attend courses in Paris approved by the Educational Committee of the Institute. Nominations for appointment are made by the Vice-Chancellors of all British Univs. before May 30, to B. S. Townroe, 16 Hanover Square, London, W.1.

CAMBRIDGE UNIVERSITY. Worts Fund for investigations in foreign countries respecting religion, laws, etc., or geographical discovery or antiquarian research therein.

CAMBRIDGE UNIV.: CLARE COLLEGE. Research Studentships, £100 p.a., not more than two at a time; graduate members of any Univ. may be elected, but preference to members of the College.

CAMBRIDGE UNIV.: EMMANUEL COLLEGE. Research Studentship, value £150 p.a., tenable for 2 yrs., with a possibility of renewal. Open to a graduate from another Univ. or other qualified student beginning research at Cambridge, with a preference to one who has already done one but not more than 2 yrs.' research. The Studentship may be held by a student already endowed from other sources, if he can show that further assistance is necessary. Applications should reach the Master not later than June 30, and should be supported by two certificates of character, a birth certificate, brief account of career, with names of professors or teachers under whom applicant studied, precise statement of proposed course of research, and any evidence of general ability and of special fitness for proposed research. A studentship of the same value is open to graduates of the College.

Rooms in the College and Commons are assigned to the Lionel de J. Harvard Memorial student nominated by the President of Harvard Univ.

CAMBRIDGE UNIV.: St. John's College. Strathcona Research Studentships in any branch of study. £200 for 1 yr., renewable for 2nd yr. Open to graduates of any Univ., with preference to members of the Coll. Applications to the Senior Tutor.

CAMBRIDGE UNIV.: TRINITY COLLEGE. A Research Studentship of value (dependent on the student's pecuniary circumstances) not exceeding £300 p.a., tenable during preparation for the Ph.D. degree in the Univ. of Cambridge. Open to men who have graduated or are otherwise qualified, provided that they have not commenced residence in the Univ. of Cambridge. Tenure is conditional on entry as Research student and upon diligence in the approved course. Applications with certificates of birth, graduation, and character, record of education, any evidence of aptitude for research, and full account of pecuniary circumstances, should reach the Senr. Tutor not later than July 1.

CAMBRIDGE UNIV.: GIRTON COLLEGE. First Girton College Fellowship, value £300 p.a., awarded to a woman of Univ. training, not necessarily a student of Girton, distinguished in some branch of intellectual work. Nominations hereafter to be made by Coll. for life or term of years at discretion. Present holder, Mrs. Arthur Strong (Eugénie Sellers).

CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND. Carnegie Scholarships and Fellowships in History, Economics, Mod. Langs. and

Lit., Science and Medicine. Scholarships, £175 p.a. for 2 yrs. with possible extension to 3rd yr. at £200. Fellowships, £300 p.a. plus special expenses allowance, for 2 yrs. with possible extension to 3 yrs. Open to British graduates of Scottish Univs. in at least one of the above, for investigation of some problem or factor of modern civilization. Nominations to be made by a Prof. or other head of Univ. Dept.

The Fellowship of the British Empire Exhibition, 3 Temple Gardens, London, E.C.4. The Fellowship is an unincorporated body formed originally to help the Exhn. At the close of the Exhn., with the approval of its President, H.R.H. the Prince of Wales, the Fellowship decided to remain in existence and work for Empire trade and the better distribution of the Empire's white population. It was able to save from its revenue nearly £10,000 for a Scholarship Fund, which was largely increased by subsequent gifts and grants-in-aid from various sources. Besides various grants to Empire educational work, grants were also made for Dominion research scholars. The Fellowship has sent over 300 scholars to Agricultural Colls. in the Dominions, and a few of the most successful of these are taking Univ. degree courses.

Goldsmiths' Company. Senior Studentships (total value £750 p.a.) not exceeding £250 p.a. open to British subjects under 26 years of age at date of application for assistance in post-graduate studies. Awards conditional on candidates taking First or Second Class Hons. in a Final School at Oxford or a Tripos at Cambridge, if they have not already done so. Students of Girton and Newnham are eligible on same terms as men. Renewable for 2nd year at option of Company. The holder must pursue his studies under the supervision of a recognized Univ. teacher in such place—either in England or elsewhere—as his teacher may approve. Applications with recommendation from Head of their Coll., 3 references to teachers, and programme of work must be addressed on or before June 1 to The Clerk, Goldsmiths' Hall, London, E.C.2, from whom further particulars are obtainable.

Henry Fund. It is proposed to offer 4 Henry Fellowships annually for study, social intercourse, and travel, value £500 each for 1 yr., tenable at Harvard or Yale Univ. Candidates must be unmarried British subjects, not over 25 yrs. on Jan. 1, men or women, who are either grads. of a recognized Univ. of Gt. Britain or Ireland, or, being grads. of a British Dominion Univ., are at the time of appln. studying at a Univ. in the British Isles, or students of a British Univ. intending to graduate in 1932-33. Further particulars and appln. forms can be obtained from the Hon. Sec., Henry Fund, c/o University Chest, Oxford. Last date for appln. Dec. 31.

London Univ.: Westfield College (for women). Two research studentships open to graduates of any Univ. Value, £30 and £60 respectively, plus free board and lodging at the College. Applications for ensuing academic year, to be made in Jan., must be accompanied by a scheme of work, 8 copies of 3 testimonials and names of 2 references.

MANCHESTER UNIVERSITY. A limited number of Hon. Research Fellowships are offered to candidates who can satisfy the Faculty concerned that they are qualified for some special study or investigation.

Fellows work under the direction of the relevant Prof., and Fellows in Experimental Science are allowed to use approved appliances in the laboratory. They must themselves provide special apparatus and materials. Tenable for 1 yr., renewable for 2nd and possibly 3rd yr. Further particulars from the Univ.

OXFORD UNIV.: LADY MARGARET HALL. Resident Research Fellow-ship, value £250, open to women graduates of any Univ., given for 3 yrs. in first instance, with possibility of renewal.

OXFORD UNIV.: SOMERVILLE COLLEGE. Lady Carlisle Research Fellowship, £200 a yr. for 5 yrs., renewable up to 10 yrs. Open to all women of European race and to naturalized Jewesses, who are unmarried or widows. Last award 1929.

[The following instn. does not grant scholarships but makes loans.] THE CENTRAL EMPLOYMENT BUREAU FOR WOMEN AND STUDENTS' CAREERS ASSOCIATION (incorporated), 54 Russell Square, London, W.C.1, has established a loan fund to help educated women who are without the means of training for professional work. No interest is charged. For University Education, Research Work, or technical Training of any kind loans are available. Amount of Fund, £8000.

## Travelling

ALBERT KAHN TRAVELLING FELLOWSHIPS. Founded by M. Albert Kahn of Paris "to enable men of proved intellectual attainments to enjoy during one yr. or more sufficient leisure and freedom from all professional pursuits or preoccupations to enter into personal contact with men and countries they might otherwise never have known; to issue from the world of books and their narrow sphere of habitual interests into the broader world of various civilizations, and all such human interests, struggles, and endeavours as go to the making of general civilization." Value originally £660 (namely, £600 for travelling expenses and £60 for books and souvenirs), increased since 1920 to £1000. Open to British subjects, men or women, who have graduated, or qualified for graduation, at a Univ. in Gt. Britain or Ireland. No age limit is imposed, but preference will probably be given, other things being equal, to persons between 25 and 35. Elections are made, in any yr. in which a Fellowship is awarded, not later than May 31 on nominations made in the preceding Jan. by the Vice-Chancellors of the Univs. in the U.K., or the President of the Royal Society, or the President of the British Academy. No award was made for 1931-32, and none will be made in 1932. Address of the Secy. to the Foundation, University of London, South Kensington, S.W.7.

FREE PASSAGES TO AUSTRALIA AND NEW ZEALAND AND BACK. The six chief passenger lines serving Australia and New Zealand place eight first-class return tickets, annually, at the disposal of the Universities Bureau for graduates of the Univs. of Great Britain and Ireland who wish to visit these Dominions (a) for the purpose of holding temporary teaching-posts, or (b) for the purpose of prosecuting research work into problems connected with their development and resources.

Application must be made to the Bureau by the authorities of the graduate's Univ.

THE INTERNATIONAL FEDERATION OF UNIVERSITY WOMEN, Crosby Hall, Cheyne Walk, London, S.W.I, awards Travelling Fellowships for women graduates of all countries, available for a year's research work in some country other than that of the holder. A research fellowship is awarded annually, value £250-£300. Further particulars from the Secretary.

OXFORD UNIV.: LADY MARGARET HALL. Susette Taylor Fellowship for independent study abroad. Value £150, open to women graduates of any Univ.

Scottish Univs. Sir James Caird Travelling Scholarships in Engineering, Electricity, Aeronautics, and Music. Open to natives of Scotland of either sex. Value: Junior £50-£150, Senior £250-£600 p.a., according to place of study and nature of work contemplated. Normally tenable for 1 yr., but may be continued up to a maximum of 3 yrs. Applications to John Pearson, Solicitor, 7 Ward Road, Dundee, not later than Mar. 31, from whom further information and application forms can be obtained.

The Chartered Surveyors' Institution, 12 Great George St., London, S.W.I. Three one-year travelling scholarships, value £125, are offered annually for a post-graduate course of study at Cambridge Univ., or for the purpose of travelling. Open to persons who have already entered the profession and to graduates intending to do so. For further particulars apply to the Secretary.

#### 2. ADULT EDUCATION

The Lancashire County Council Education Committee offer Scholarships (1 or 2) of value probably not less than £100 p.a. for encouraging non-vocational education among adult students fully engaged in industry. Age limits, 22 and 40. Evidence required of having devoted leisure time to study in a Univ. Tutorial class or in other ways. Tenable for a year, and renewable for a 2nd or 3rd yr. They are not intended for persons who desire to take ordinary three-year univ. courses in Arts, Science, Medicine, or Technology, nor for those wishing to qualify as teachers in Public Elementary Schools. The scholar will ordinarily be required to devote his whole time to study in a Univ. or other approved instn. Entry forms obtainable from the Director of Educn., County Offices, Preston.

## 3. AGRICULTURE, VETERINARY SCIENCE, ETC.

The College of Estate Management, 35 Lincoln's Inn Fields, London, W.C.2. *Travelling Scholarship* in Agriculture, value not over £300 for one yr. for study of Agricultural methods in this country or abroad. Open to British born graduates of a British Univ. or those holding other approved qualifications. Candidates, who must be under 30 yrs. of age, must apply on a prescribed form to the Secy. of the Coll.

COLONIAL OFFICE. (i.) Not more than 20 scholarships in Agriculture, usually tenable for 2 yrs., value £250 p.a., will be offered annually, at any rate until the year 1933, (a) for Agr. Research, (b) for General Agr. Candidates for (a) scholarships should hold an Hons. degree in Pure Science, and for (b) a degree in Natural Sci., or Agr. Scholarship holders will spend part of their course at the Imperial Coll. of Trop. Agriculture in Trinidad, or some similar Institution. On completing their course they may be selected for appointment to the Colonial Agricultural Service.

(ii.) Not more than ten post-graduate scholarships in *Veterinary Science*, value £250 p.a., will be awarded annually up to 1938 for periods of from one to five yrs. Candidates should normally hold a science degree of a British Univ. or the diploma of the Royal Coll. of Veterinary Surgeons, or a Veterinary qualification granted in one of the self-governing Dominions. On completing their training they may be selected for appointment to the Colonial Veterinary Service.

Further particulars obtainable from the Director of Recruitment,

2 Richmond Terrace, Whitehall, S.W.1.

EMPIRE COTTON GROWING CORPORATION, Millbank House, 2 Wood St., Millbank, London, S.W.I. Post-graduate studentships usually offered to provide opportunity to men of British nationality, either for additional training in research methods in, or for advanced study of, plant physiology, genetics, entomology, tropical agriculture, etc., have been suspended. Value £250 each, in addition to travelling expenses, and tuition fees for those holding their studentships at the Imperial College of Tropical Agriculture, Trinidad, with additional allowances for books and apparatus.

Manchester University. Philip Buchle Research Scholarship in Agric. Zool. £74 p.a., renewable for 2nd yr. Open to graduates of British Univs. or other candidates possessing required qualifications, with preference to Science grads. of the Univ. Next award 1932. Last date of appln. June 15.

The following does not make grants to individuals for research, but supports and promotes research by making grants to existing research organizations.

The Empire Marketing Board, 2 Queen Anne's Gate Bldgs., Dartmouth St., London, S.W.I, was set up in 1926 to advise the Secretary of State for Dominion Affairs in the administration of an annual Parliamentary Vote for the furtherance of the marketing of Empire products (including home agricultural produce) in the United Kingdom. The main activities of the Board are in the fields of scientific research, economic investigation, and publicity. Many grants for scientific research have been made to institutions both at home and overseas. See also under S. Africa below.

## 4. APPLIED SCIENCE AND TECHNOLOGY

BIRMINGHAM UNIVERSITY. Research Studentship in Oil Engin. and Refining, £240 p.a., and remission of tuition fees, renewable annually

for not more than 3 further yrs. with increase of £20 p.a. to maximum £300. Candidates must possess a Univ. degree or equivalent in Science. Pref. to those with industrial lab. experience. Offered every alternate yr. Next award may be made in 1933.

LEEDS UNIVERSITY. (i.) Clothworkers Fellowships, £160 p.a., and Scholarships, £140 p.a. in Colour Chemistry and Textiles, open to graduates of any Univ. Tenable for I yr. and renewable. Applications received up to June I.

(ii.) Gas Research Fellowship, £200 p.a., open to qualified candidate, with preference to one intending to enter the coal gas industry. Tenable for I vr. and renewable. Award made in June, after advertisement.

(iii.) James Edmondson Ackroyd Fellowship, value not less than £150 p.a., for research work for the furtherance of the Textile Industry of the West Riding of Yorkshire. Preference to graduates in Sci. or Technol.; open to suitable candidates from other Univs., but preference ceteris paribus to natives of, or residents for not less than 5 yrs. in, Bradford. Awarded for 3 yrs., and renewable for further period not exceeding 3 yrs. Awards made in June; applications received up to May 1.

Manchester Univ.: Municipal College of Technology. Research Scholarships (10) in Technology, £100 each, open to graduates of any Univ. in the Empire and others possessing special qualifications.

NOTTINGHAM UNIVERSITY COLLEGE. For post-graduate scholarships in Applied Science, see p. 773.

ROBERT BLAIR FELLOWSHIPS. Two fellowships in Applied Science and Technology awarded annually for advanced study or research in the Dominions, U.S.A., or other foreign countries. £450 each. Open to British subjects at least 21 yrs. of age. Preference to students of Engineering Science, and to those who have completed a course of study in London Institutions or been identified with the London teaching service. Applications receivable by the Education Officer, County Hall, London, S.E.r, up to June 1.

The Royal Commission for the Exhibition of 1851. The Commrs offer Industrial Bursaries of not more than £156 p.a. for 1, 2, or, exceptionally, 3 yrs. to cover the period between leaving College and obtaining sufficiently remunerative employment in Industry. Open to British male subjects aged under 25 recommended through the executive authorities of such instas. as may be invited by the Commrs. to nominate. A candidate must have been a bona fide student of Science for a term of 3 yrs., should give evidence of practical ability likely to lead to his advancement in industrial work, and show that he has obtained, or can within a reasonable period obtain, an industrial post to be approved by the Commrs., and is in need of pecuniary assistance to enable him to hold such a post. 28 bursaries awarded in 1931.

Address of the Secy. to the Commrs., I Lowther Gardens, Exhibition Road, London, S.W.7.

SALTERS' INSTITUTE OF INDUSTRIAL CHEMISTRY. The Institute offers Fellowships to chemists of graduate standing to enable them to undergo a special further training at home or abroad for careers, in

chemical industry. The value of a Fellowship is normally from £250 to £300, but the Inst. is prepared to consider applns. which justify the award of a Fellowship of higher value. Further particulars from the Director, Salters' Hall, St. Swithin's Lane, London, E.C.4.

SHEFFIELD UNIVERSITY. (i.) Ironmongers' Company Research Fellowship in Cold-working of Steel and other ferrous metals, £500 p.a. Tenable at Sheffield Univ., length of tenure not fixed. Date of next award uncertain.

(ii.) Two Research Scholarships, tenable at Sheffield Univ., £150 p.a. renewable from yr. to yr. for a period usually not exceeding 4 yrs. in all. Open to British subjects of Engl., Scottish, Welsh, or Irish birth, graduates or students of Sheffield Univ. or grads of other Univs. Preference to candidates with special qualifns. in Engin. and in Physics respectively. Date of next awards uncertain.

(iii.) Research Fellowships in Glass Technol, £175 for first yr., and £200 if renewed for a 2nd yr., are offered from time to time. Candidates should possess an Hons. degree with special training in phys. chemistry, physics, or metallurgy. The Fellows will be engaged under the direction of the Prof. on fundamental researches on the constitutions and

properties of glass.

Further particulars in each case from the Registrar.

## 5. ARCHITECTURE

See Art and Archæology

# 6. ARTS (General)

BRITISH FEDERATION OF UNIVERSITY WOMEN, Crosby Hall, Cheyne Walk, London, S.W.3. *Caroline Spurgeon Scholarship* (International) in Arts, £100 p.a. for 2 yrs., to enable the holder to carry on research or advanced post-graduate work while residing at Crosby Hall.

CAMBRIDGE UNIV.: GIRTON COLLEGE. (i.) Jex-Blake Fellowship in Arts, value £250 p.a. for 3 yrs., for research in any branch of learning except Maths. and Nat. Sciences. Open to women who are graduates or have taken Hons. in a final degree examn. of any Univ., and to members of Girton Coll. Roll. Tenure as from July 1 or Oct. 1 at Fellow's option. Applications to Secretary of Coll. not later than Feb. 2. Offered for 1932-35.

(ii.) Pfeiffer Fellowship in Arts, value £250 p.a. for 3 yrs. Conditions

as for Jex-Blake Fellowship above. Last award 1931.

# 7. ARTS (Special Subjects)

## Art and Archæology

BRITISH SCHOOL AT ROME. (i.) The Rome Scholarship in Engraving, value £250 p.a. and tenable for 2 yrs. Open to British subjects who are unmarried and under 26 yrs. of age. (ii.) Rome Scholarships in Architecture, Sculpture, and Mural Painting. Each of the value of

f250 p.a., tenable for 2 yrs. Open to Brit. subjects of either sex who are unmarried and under the age limits prescribed by the Facs. conducting the annual competitions. (iii.) The Bernard Webb Studentship for the historical and critical study of Architecture, tenable for 1 yr. and open to students who have been members of the Architectural Assn. for 4 yrs. Value £250. (iv.) Rome Scholarship for Research in Roman or Italian Hist., or Antiquities or Lit., and (v.) Rome Scholarship in Mediæval Studies awarded in alternate years of the value of £150 p.a., tenable for 2 yrs. and open to students under 30 yrs. of age. (vi.) Pelham Studentship in Archæology, value £100, and (vii.) Oxford Studentship in Archæology, value £100, awarded in alternate years by the Univ. of Oxford. Address of the Secretary, British School at Rome, I Lowther Gardens, Exhibition Road, London, S.W.7, and of the Secretary, Faculty of Archæology, 50 Bedford Square, London, W.C.I.

BRITISH SCHOOL AT ATHENS. A studentship of value floo tenable for one year is placed at the disposal of the Univs. of Oxford and Cambridge alternately. About every 3 yrs. the Sachs Memorial Studentship (£100) is open to all Univs. in the British Isles; and the Macmillan Studentship (£200) is tenable for 2 yrs. by a man of British nationality. Nomination to these is made by the Managing Committee. R.I.B.A. also maintains a Bursary at the School (see Royal Institute of British Architects). All students admitted to the School are expected to spend at least 3 months in Greece and to be engaged on some research work. They can, on payment of a small rent, reside in the School Hostel. and are admitted to use of the library. They also obtain special facilities for working in Museums and in travelling. Open to any qualified British student, including students of the British School at Rome, and holders of travelling fellowships, studentships, or scholarships at any Univ. of the British Empire, and travelling students of the Royal Academy, the R.I.B.A. and the Byzantine Research and Publication Fund, or other similar bodies, are admitted as students. The School is open from Nov. I to July I. Further particulars from the Secretary. British School at Athens, 50 Bedford Square, London, W.C.r.

GILCHRIST EDUCATIONAL TRUST. Studentship in Art and Archæology, offered in alternate years, tenable at the *British School at Rome*, £75 for I yr. At least 5 months to be spent in Rome. Open to men and women under 25 yrs. for a definite course of study for which Rome offers advantages and calculated to assist them in their profession. Applications with statement of previous training and proposed course, copies of not more than 3 recent testimonials based on personal acquaintance with candidate and his work, and any refs., should reach the Secy. of the School, British Museum, London, W.C.I, by July 31.

ROYAL INSTITUTE OF BRITISH ARCHITECTS. Bursary in Architecture, £100, tenable at *British School at Aihens*. Open only to members of teaching staff of a recognized school of the R.I.B.A. Further particulars from the Secretary, Brit. School at Athens, 50 Bedford Square, London, W.C.I.

The London Museum, Lancaster House, London, S.W.I. Esher Research Studentship for Archæology or History, offered biennially,

value £300 p.a. Open to all graduates without restriction. For further particulars apply to the Secretary.

## Classics

BRITISH ACADEMY.—Cromer Greek Prize, £40. Open to British subjects under 26 yrs. of age. Essays to be sent in before Dec. 31. Address—The Secretary, The British Academy, Burlington Gardens, London, W.I.

CAMBRIDGE UNIVERSITY. (i.) Craven Fund. Grants may be made to the Craven Student or to any person engaged in research in the Langs., Lit., Hist., Archæol. and Art of Ancient Greece and Rome, and the Compar. Philol. of the Indo-European langs.

(ii.) Sir Perceval Maitland Laurence's Bequest. Grants not exceed-

ing £100 p.a., may be made in aid of research.

# English Literature

BRITISH ACADEMY. Rose Mary Crawshay Prize for English Literature, £100. Open to women of all nationalities for historical or critical work, preference being given to work regarding Byron, Shelley, or Keats. Suggestions of works to be considered may be sent in at any time, and will be considered in April of each year. Address—The Secretary, The British Academy, Burlington Gardens, London, W.r.

# Geography

GILCHRIST EDUCATIONAL TRUST. Studentship in Geography, £100 awarded biennially. In abeyance.

Address of the Secy. to the Trustees: I Plowden Buildings, Temple,

London, E.C.4.

# History

CAMBRIDGE UNIV.: St. John's College. Mullinger Scholarship in Mediæval Hist., £100 p.a. for 2 yrs. Open to graduates of Overseas Dominions and of the U.S.A. Applications to the Senior Tutor.

CAMBRIDGE UNIV.: GIRTON COLLEGE. Graduate Scholarship for Historical Research, £100. Usually open to graduates of any Univ. Offered from time to time.

CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND. See p. 751. LONDON MUSEUM. Esher Research Studentship, see p. 758.

London University. (i.) Julian Corbett Prize, value £50, open to any investigator admitted to the Institute of Historical Research who has been working either there or, if a naval officer, under the advice of the Committee of the Institute for not less than one yr. prior to date of sending in work for competition. The work shall be either a dissertation or an edition of an original document or documents, or a report on material at home or abroad illustrating modern naval history. The prize is awarded annually, and applications should reach the Sec.,

Institute of Historical Research, Malet Street, London, W.C.I, before Oct. I

(ii.) Lindley Studentship, value fizo, awarded every 3rd yr. if there is a candidate of sufficient merit, for research in History to be undertaken at the Institute of Hist. Research. Open to both sexes; preference to a graduate of the Univ. or to candidate prepared to work for a higher degree of the Univ. Applications as above, before May 30, 1934.

LONDON UNIV.: UNIVERSITY COLLEGE. Sir William Meyer Studentships (endowment, £3000). I in European Hist., I in Hist. and Geog. of India, about £120 each, tenable for 2 yrs. Open to graduates of Univs. of the Empire studying for approved higher degrees of the Univ. of London. Applications to the Secretary of the Coll. on or before June I. Next award, June 1932—European Hist.

MANCHESTER UNIVERSITY. (i.) Edmund Roscoe Post-graduate Scholarship, £50 for 1 yr., renewable for a second yr. Open to persons of British nationality who have studied Hist. in any Univ. or Univ. Coll. Offered alternately with the Pickles post-graduate studentship. Next award 1932. Last date for applns. June 15.

(ii.) Pickles Post-graduate Studentship, £50 for 1 yr., offered biennially,

conditions same as for foregoing. Next offer 1933.

# History, etc., of British Empire

THE ROYAL EMPIRE SOCIETY. (i.) Walter Frewen Lord Prize in Imperial Hist. Annually, value £25, for a monograph or essay (10,000-20,000 words) on a subject of Imperial Hist. embodying either the results of orig. work or an ordered and critical exposition of existing data. Open to undergraduates or graduates of any Univ. or Univ. Coll. in the Empire of not more than 4 yrs.' standing from their first degree. Next award 1933. Applns. to be received on or before Dec. 31, 1932.

(ii.) Grants from a small fund are made to facilitate the publication of orig. monographs embodying results of research relating to the British Empire oversea. Candidates must not be more than 35 yrs. on Dec. 31 of yr. of application. Monographs of not more than 60,000-80,000 words. Next award about end of Jan. 1933. Applns. before Dec. 31, 1932. Further particulars in each case from Asst. Secretary, Imperial Studies Committee, Royal Empire Society, Northumberland Avenue, London. W.C.2.

# History and Geography of India

LONDON UNIV.: UNIVERSITY COLLEGE. Sir William Meyer Studentships, see under History.

## Law

CAMBRIDGE UNIVERSITY. (i.) F. W. Mailland Memorial Fund. (Annual income about £100.) Grants may be made to any person engaged in any research in the History of Law or of Legal Language or

Institutions, or for delivery of lectures, publication of works, etc., con-

nected with these subjects.

(ii.) Whewell Scholarships in International Law, one at least annually of £100 for 2, with possible extension to 3 yrs., open to all persons whether already members of the Univ. or not who are under 25.

## Mathematics

CAMBRIDGE UNIV.: St. John's College. Philip Baylis Studentship in Mathematics, £200. Open to graduates of any Univ., but preference to College members. Applications to the Senior Tutor.

# Modern Languages

CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND. See p. 751.

GILCHRIST EDUCATIONAL TRUST. Studentship in Modern Languages. £80, awarded biennially, tenable abroad. Open to honours graduates in a mod. foreign lang. or languages, intending to teach the same in a secondary or intermediate school. Applications to the Registrar, University of Wales, Cathays Park, Cardiff.

London Chamber of Commerce. From the Charles R. E. Bell Fund two scholarships, value £150 each, will be awarded in 1932 and annually until further notice for continuous residence and language study for not less than 6 months in a foreign European country. Open to approved male candidates between 16 and 23 yrs. of age whose parents are natural-born British subjects. Candidates must pass the Chamber's Senior examn. in English, and pass with distinction in one foreign language. Address—Commercial Education Dept. of the L.Ch.C., Oxford Court, Cannon St., London, E.C.4.

#### Music

Scottish Univs. Sir James Caird Travelling Scholarship in Music, see under General (Travelling).

# Oriental Languages

GILCHRIST EDUCATIONAL TRUST. Scholarship in Chinese, or, in case of no suitable candidate, in Arabic or Sanskrit. £50 tenable at the School of Oriental Studies, London, or, in the case of a student of the School of I yr.'s standing, in an Oriental country. Open to candidates of European origin. Awarded on results of an examn. held in July in Grammar, 2 set books, and unseen translation. Applications (in a prescribed form) receivable by the Director of the School, Finsbury Circus, London, E.C.2, up to May 15.

London University. Ouseley Memorial Scholarships, I in Arabic, I in Persian, I in Urdu or Hindi. £65 each for I yr., tenable at a College or School of the Univ. or in an Oriental country. Open to graduates of European origin. Applications to the Academic Registrar, Univ. of London, S. Kensington, S.W.7.

# Philosophy

CAMBRIDGE UNIV.: NEWNHAM COLLEGE. Sarah Smithson Fellowship in Psychology or Philosophy (incl. Class. Philos.), £250 p.a. for 3 yrs. Open to graduates of any Univ. Awarded on dissertation or other written work. Applications to The Principal.

Psychology See Philosophy

#### 8. COMMERCE

Bradford Chamber of Commerce, Commerce House, Bradford, Yorks. Endowment, £40,000, established Dec. 1924, for making grants for maintenance of British-born students (preferably Yorkshiremen) in foreign countries with the view of promoting commerce between England and such foreign countries. Grants are for 6 months' residence, and may be renewed up to 18 months. Holders will be expected to be affiliated to business firms of good standing in the countries they go to. Preference to persons intending to study Spanish or Russian. Application forms (price 1s.) obtainable from the Secretary.

## 9. ECONOMICS AND SOCIOLOGY

CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND. Sec p. 751.

THE CO-OPERATIVE UNION. Acland Travelling Scholarships (Exec. Committee of the Labour Party and Co-op. Union Central Board) for investigation of industrial, social, or ednl. conditions abroad. £200 for 9-12 months. Open to British candidates, 20-30 yrs. of age, with sufficient knowledge of foreign langs. (or who acquire it) for the work. Applications to The General Secretary of the Union, Holyoake House, Hanover St., Manchester.

The Garton Foundation, I Lowther Gardens, Exhibition Rd., London, S.W.7. The Garton Studentship, value £400, for study, during a year or more, of social or economic problems of fundamental importance. Open to British subjects nominated (on invitation) by Universities of the Empire. Candidates must submit a thesis and propose a subject for research. Next award in 1933.

London University. *Metcalfe Studentship* for women, value froe at least, tenable at London School of Economics. Open to any woman graduate of a United Kingdom Univ. for research on some social, economic, or industrial problem approved by the Univ.; preference to a student proposing to study a problem bearing on the welfare of women. Further particulars from, and applications (before Sept. 1) to, the Academic Registrar, Univ. of London, S. Kensington, S.W.7.

LONDON UNIV.: LONDON SCHOOL OF ECONOMICS. (i.) Ratan Tata Research Studentship, £200 p.a. plus fees, tenable at the School for 1 yr., possible extension for 2nd yr., for research into some contemporary

social or industr. problem in connexion with the life and labours of the working classes. Applns. by Sept. 12, 1932.

(ii.) Research Studentship, £200 p.a. plus fees, tenable at the School for 2 yrs., for research in Econ. or Pol. Sci. Applns. by Oct. 3, 1932.

(iii.) Women's Studentship, £150 p.a. plus fees, tenable at the School for 2 yrs., open to women students 20 yrs. of age or over, for research preferably in Econ. Hist. Applns. by Sept. 12, 1932.

MANCHESTER UNIVERSITY. Drummond-Fraser Research Fellowship in Econ. and Commerce. £100 for 1 yr. Open to graduates of any approved Univ. Applns. by June 1.

THE MITCHELL TRUST. A Mitchell Studentship, value £100, open to graduates of a British Univ. possessing the necessary City qualifications, for study and investigation of some definite feature of business or industrial organization at home or abroad may be awarded for 1932-33. Further particulars from the Clerk to the Mitchell Trustees, H. A. Cox, F.C.A., F.S.A., 28 Basinghall St., London, E.C.2.

Social Science Research Training Committee. 2 scholarships, each value £60 for 1 yr., renewable. Open to men and women graduates or candidates otherwise qualified for research in Business and Social Econ. One is offered by the Committee, the other by the Drapers' Company, to whom the Committee recommend for appointment. Special consideration for the Drapers' Company's Scholarship given to suitable candidates from East London Coll. (Univ. of London), or from other institutions connected with the Company. The scholarships are intended to encourage the use of statistical and quantitative methods in the investigation of Business and Social Econ. problems. Further information from, and applications (on or before Sept. 1, 1932) to, the Secretary (Mr. N. F. Hall) of the Social Science Research Training Committee, University College, Gower Street, London, W.C.I. Next award, early in Oct. 1942, for the academic yr., 1932–33.

## 10. EDUCATION

BOARD OF EDUCATION, Whitehall, London, S.W.I. A limited number of Studentships may be awarded to assist suitable teachers in recognized schools and instns., of not less than 5 yrs.' teaching experience, to undertake at Univs. or other instns. full-time courses of advanced study or research which may reasonably be expected to lead to improved teaching ability. If an academic course, it should be of at least post-graduate type. Proposals to carry out research embodying travel or the practical study of industrial conditions definitely connected with the teaching of technical subjects have been considered. The grant may be made in the first instance either for a term or for an academic year, and may be extended at the Board's discretion to not more than 2 yrs. in all. The amount depends on the candidate's circumstances and the length and nature of course proposed, and the rate will not exceed £100 for one acad. year. Further particulars and appln. forms obtainable from the Secretary.

THE CO-OPERATIVE UNION, Acland Travelling Scholarships. See under Econ. and Sociology.

GILCHRIST EDUCATIONAL TRUST. Several Scholarships of £30 tenable for 1 yr. in a Training College for Women. Open to graduates of a British or other recognized Univ. Address of the Secretary to the Trustees, 1 Plowden Buildings, Temple, London, E.C.4.

MANCHESTER UNIVERSITY. Graduate Bursaries, not more than 6 annually. Free entry to Diploma Course. Open to graduates or the equivalent, of not more than two and a half yrs.' standing, of any Univ. in Gt. Britain and Ireland. Preference, in the case of three, to grads. of Manchester. Award in July.

Scottish Teachers' Scholarships. 3 annually, £250, plus £50 for travelling expenses, for 1 yr. with possible renewal. Tenable at Teachers' College, Columbia Univ., N.Y., Toronto Univ., and McGill Univ., Montreal. Open to trained certificated teachers holding M.A. or B.Sc. degree, who have distinguished themselves in their professional career. Applications to The Executive Officer, Central Executive Committee for the Training of Teachers, 140 Princes St., Edinburgh. See also pp. 293-4.

SIR RICHARD STAPLEY EDUCATIONAL TRUST. Constituted in 1919, to administer a fund to assist educational progress by subsidizing necessitous students, promoting educational experiment and research, etc. In 11 years it has assisted over 1600 students at universities. In 1924 the Trust published a report on the scholarship system with special reference to grants by Local Education Authorities entitled "The Poor Student and the Universities." Address—The Secretary, 32 Gordon Sq., London, W.C.I.

## 11. ENGINEERING (General)

BOARD OF EDUCATION, Whitehall, London, S.W.I. Whitworth Scholarships (maintained by Sir Joseph Whitworth's Foundation), five of £150 p.a. for 3 yrs., one of £150 for 1 yr. (which may be increased to 2 in 1932 and 3 in 1933), and two of £250 for 2 yrs. Open to British subjects under 24 yrs. of age for the middle group, and 26 for the first and last group, who have been engaged in handicraft in a mech. engineering workshop for at least 30 months; awarded on result of examn. held in May. Applications receivable up to Jan. 15. Regns. with syllabus obtainable (3d.) from H.M. Stationery Office, Kingsway, London, W.C.2.

MANCHESTER UNIVERSITY. (i.) Vulcan Fellowship for advanced study and research in Electr. and Mech. Eng. £200 p.a., renewable for 2nd and possibly 3rd yr. Open to graduates of any Univ.

(ii.) Osborne Reynolds Research Fellowship for research in Eng. or in sciences most directly related thereto. £200 p.a., renewable. Open to graduates of any Univ. Appln. not later than May 1.

SCOTTISH UNIVS. Sir James Caird Travelling Scholarships in Engineering, etc. See under General (Travelling).

#### 12. ENGINEERING (Special Branches)

# Engineering, Electrical

THE BRITISH ELECTRICAL AND ALLIED MANUFACTURERS' ASSOCN., 36 Kingsway, London, W.C.2, for several years granted scholarships in Engineering of £100 plus college fees to apprentices or students of British birth. The scheme is under revision.

See also Engineering (General).

Engineering, Mechanical See Engineering, General

# Mining and Mining Engineering

THE INSTITUTION OF MINING ENGINEERS. Mavor and Coulson travelling post-graduate scholarship in Mining Engineering. See App. IX.

THE ROYAL SOCIETY, Tyndall Research Fund. See under Science (General).

# Naval Architecture and Marine Engineering

The Institution of Naval Architects, 2 Adam St., Adelphi Terrace, London, W.C.2. Sir William White Post-graduate Scholarship (part-time) in Naval Architecture (incl. Shipbuilding and Marine Eng.), £150 p.a. for 2 yrs. Private work may be carried on concurrently, subject to Council's approval. Open to British students under 30 yrs. of age who have attained distinction at either the R.N. Coll., Imperial Coll. (City and Guilds Engin. Coll.), Glasgow Univ., Armstrong Coll., or Liverpool Univ., and have had practical experience in shipbuilding or marine eng. work. Nominations are made by the Governing Bodies of the above instns. to the Council of the Instn. of N.A.

The Royal Commission for the Exhibition of 1851. Post-graduate scholarship in Naval Architecture. £250 p.a. for 2 yrs. for research work (for which no emolument will be receivable) in problems connected with design and construction of ships and their machinery and in the development of the shipbuilding industry at home and abroad. Open to British subjects under 30 who have passed with marked distinction through a course of study and practical training in Naval Arch. at, and been nominated by, the R.N. College, Greenwich, Univ. of Glas. or Liv., or Armstrong College. The nominations are reported on by the Council of the Instn. of Naval Architects.

Address of the Secy. to the Commrs., I Lowther Gardens, Exhibition Rd., London, S.W.7.

#### 13. FISHERIES AND PRESERVATION OF FISH

DEVELOPMENT FUND. Researches likely to lead to results bearing on the development and improvement of fisheries are eligible for advances from the Development Fund as follows:

I. Grants-in-aid of the general work of Independent Marine Institu-

tions, to aid fundamental researches forming part of the Institution's

continuous programme of work.

2. Grants for Specific Researches. (a) Directed to definite economic ends of use to the Fishing Industry, and carried out in collaboration with the Ministry of Agriculture and Fisheries and the Fishery Board for Scotland; or (b) "Free" researches.

The amount provided in the Ministry of Agriculture and Fisheries' estimates for 1931–32 for grants under 2 (a) was £750. A sum of £250 for Miscellaneous Researches was provided for that year in the estimates

of the Fishery Board for Scotland.

The Development Commrs. will also be prepared to consider applications for additional grants for temporary assistants and for apparatus, etc., to enable members of the staff of a Marine Institution to prosecute special lines of inquiry.

Details are contained in the annual reports of the Development Commissioners (6A Dean's Yard, Westminster, London, S.W.r.), obtain-

able from H.M. Stationery Office, Kingsway, London, W.C.2.

MARINE BIOLOGICAL ASSOCIATION. Ray Lankester Fund, £100. See App. XXIV., A., III. 1.

## 14. JOURNALISM

London University. *Journalism Exhibns*. £50-£75 p.a. for 2 yrs. Three awarded in 1931. Further particulars from the Academic Registrar.

# 15. MEDICINE AND SURGERY (General)

BEIT MEMORIAL FELLOWSHIPS FOR MEDICAL RESEARCH. Founded in 1909 by Sir Otto Beit, Bart., K.C.M.G., F.R.S., in memory of his brother Alfred, "to promote the advancement by means of research of Medicine and the allied sciences in their relation to Medicine." Open to graduates, men or women, of pure European descent, in any Faculty of a Univ. in the British Empire. Six Junior Fellowships, each of £400 p.a. more or less and usually tenable for 3 yrs., are awarded in July. An extension to a fourth year at £500 is sometimes granted. Notice of each election is published 3 mos. in advance. Applications are considered by an Advisory Board. Senior Fellowships of £700 p.a., tenable for 3 yrs., may also be awarded to persons who have already held Junior Fellowships. Address of Hon. Sec. to the Trust—Prof. T. R. Elliott, M.D., F.R.S., University College Hospital Medical School, University St., London, W.C.I.

CAMBRIDGE UNIVERSITY. Gwynaeth Pretty Research Studentship, of £200 for 3 yrs., for research in the Aetiology, Pathology, or Treatment of Disease with particular reference to diseases which disable in childhood or early life. Candidates need not be members of the Univ. Offered triennially.

CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND, v. p. 751.

GROCERS' COMPANY. Three scholarships, £300 each, for 1 yr., renewable for 1 or 2 yrs., for inquiry into Causation of Prevalent Disease or as

to means of Prevention of Premature Death. Cost of apparatus, etc., will be defrayed up to £300 in any one year. No other scholarship to be held or remunerative employment undertaken without sanction. Open to British subjects under 35 yrs. of age. Applications in prescribed form receivable before April 1 by the Clerk, Grocers' Hall, Princes Street, London, E.C.2.

London University. (i.) Mary Scharlieb Research Studentship for post-graduate medical research. £250 for 1 yr., renewable for 2nd yr. Awarded from time to time.

(ii.) Rogers Prize, value froo, for an essay or dissertation on some medical or surgical subject named and appointed by the Univ. and made public in such manner and at such time as the Univ. may determine. Next award 1934. Subject announced later. Open to all persons on the Medical Register of the U.K. The essay or dissertation to be addressed under a motto or device to the Vice-Chancellor, and delivered at the Univ. on or before 4 P.M. on the last day, other than Sunday, of April in the yr. of award.

London Univ.: London School of Medicine for Women. Edith Pechey Phipson Post-graduate Scholarship in Medicine. £100 for 1 yr. with possible renewal. Open to all British or Indian medical women, with preference to those coming from or going to work in India. Applications to the Secretary, 8 Hunter Street, London, W.C.I.

The Medical Research Council, 38 Old Queen St., Westminster, S.W.I, formerly the Medical Research Committee established in 1913 under the Nat. Health Insurance Act, transferred by Royal Charter, 1920, to a Committee of the Privy Council. They apply money voted by Parliament or received from private sources for the furtherance of medical research. Grants are made to qualified investigators in respect of approved programmes of research work to be carried out in Univs., Medical Schools, Hospitals, or other institutions. Names of recipients and accounts of the schemes of research supported are given in the Council's Annual Reports published by H.M. Stationery Office. Grants may be either personal, i.e. to provide remuneration in respect of whole-time or part-time work devoted to particular subjects approved by the Council, or for expenses necessarily incurred in the prosecution of the approved researches.

Rockefeller Medical Fellowships, not less than £350 p.a. plus travelling expenses, tenable normally for 1 yr. in the U.S.A., or in suitable cases in other countries, are also provided for graduates in medicine or related branches of science: 5-8 awarded annually. The value of these Fellowships may be increased in view of the qualifications

of candidates and programme of work proposed.

ROYAL COLLEGE OF PHYSICIANS, Edinburgh: (i.) Freeland Barbour Fellowship, value about £100, awarded biennially; next award May 1933. Open to those who have done original work for the most part in the two preceding yrs. in the Laboratory of the Royal Coll.

(ii.) Lister Fellowship, value about £100, awarded biennially, next award May 1932, open to licentiates or graduates in Med. or Surg. for

original research carried on for the most part during the 2 preceding yrs. in the Laboratory of the Royal Coll.—preference to research in Bacteriology.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND. Streatfeild Scholarship, £250 for 3 yrs., for research in Medicine or Surgery. For particulars apply to the Registrar, Pall Mall East, London, S.W.1.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND. *Mackenzie MacKinnon Research Fellowship*. For I-3 yrs. Open to holders of med. qualification registrable in Gt. Britain or Ireland, or of a Univ. degree, nominated by a Med. School. Application to Secretary, Royal College of Surgeons, Lincoln's Inn Fields, London, W.C.2.

ROYAL SOCIETY OF MEDICINE. William Gibson Research Scholarship in Medicine, £290 p.a. for 2 yrs., renewable for a third yr. Awarded from time to time to qualified med. women who are British subjects. Unrestricted travelling allowed for purposes of research undertaken. Applications to the Secretary, r Wimpole St., London, W.r.

## 16. MEDICINE AND SURGERY (Special Subjects)

## Anatomy

Manchester University. Morrison Watson Fellowship in practical and descriptive anatomy, £150 p.a. and occasionally more; renewable for 2nd yr. Open to persons with a medical qualification registrable in the U.K. or a degree of an approved Univ. Applns. not later than June 1.

# Bacteriology

LISTER INSTITUTE OF PREVENTIVE MEDICINE, Chelsea Bridge Road, London, S.W.I. The Jenner Memorial Research Studentship, £250 for I yr. with possible extension for 2nd yr. Open to British subjects. Vacancies advertised. Applns. to Secretary.

LIVERPOOL UNIVERSITY. John W. Garrett International Fellowship in Bacteriology, £100, tenable for 1 yr., offered annually. Failing a candidate in Bacteriol., the Profs. of Pathol. and Physiol. shall be invited to nominate a candidate. Open in the first place to members of Univs. and Med. Schools in the U.S.A., and of other foreign Schools. Applications to be sent to the Dean of the Fac. of Med. not later than May 31.

# Bio-Chemistry See under 18. below.

#### Cancer

LEEDS UNIVERSITY. Cancer Research Fellowships, given through Yorkshire Council of the British Empire Cancer Campaign. 4 in number, value not exceeding £500. Tenable for 1, 2, or 3 yrs., renew-

able. Vacancies announced as they occur. Applns. to the Clerk to the Senate.

London University. Laura de Saliceto Studentship for advancement of Cancer research, value £150 for 2 yrs., renewable for total of not more than 5 yrs. Open to both sexes irrespective of Univ. of which they are members. The Studentship may be held in conjunction with a physiol. or pathol. laboratory appointment or a clinical appointment affording special opportunities for study of Cancer. Vacancies in the Studentship will be advertised in the public press. Applications before July 1 of year of appointment. Further particulars from the Academic Registrar, Univ. of London, S. Kensington, S.W.7.

Manchester University. Pilkington Fellowship in Cancer research. £300 p.a., renewable for 2nd yr. or more. Open to graduates in Med. or Surg. of any approved Univ. or Med. School, or to members or Fellows of the R. Colls. of Surgeons of England, Edinburgh, or Ireland, or Licentiates, Members or Fellows of the R. Colls. of Physicians of London, Edinburgh, or Ireland. Applns. by June 30.

[The following body does not make grants to individuals for research, but supports and promotes research by making grants to existing research organizations.]

The British Empire Cancer Campaign was founded in May 1923 to co-ordinate and support research on cancer throughout the Empire. The governing body includes representatives from most of the principal hospitals with cancer research depts. Chairman, The Most Hon. The Marquess of Reading, P.C., G.C.B., G.C.S.I., etc. The Scientific Advisory Committee is appointed jointly by the Royal Society, the Medical Research Council and the Campaign. The Radiology Committee of the Medical Research Council, with representatives of the Campaign, acts jointly for both bodies. *Address*—Sir Richard Garton, G.B.E., Hon. Secy., 12 Grosvenor Crescent, Hyde Park Corner, London, S.W.I.

# Diseases of Children

LIVERPOOL UNIVERSITY. Ridgeway Research Scholarship, value about £100, tenable for r yr. for research in some branch or branches of Tuberculosis in children. The Scholar must be a graduate in Med. of an approved Univ. (or hold a registrable qualification). Application, stating academic career and subject of proposed investigation, to be sent to the Dean of the Fac. of Med. not later than Sept. 30.

MANCHESTER UNIVERSITY. Ashby Memorial Research Scholarship in diseases of children. £100 offered triennially. Open to any med. practitioner registrable in England. Next award 1932. Last day of entry June 30.

# Neurology

MANCHESTER UNIVERSITY. Knight Fellowship for study of the factors concerned in development of symptoms of mental disturbance. £150 offcred triennially. Open to grads. of any Univ. Next offer, 1932. Applns. not later than June 1.

# Obstetrics and Gynæcology

Wales, Univ. of: Welsh National School of Medicine. Ewen Maclean Research Scholarship in Obstetrics and Gynæcology, £150 for I yr. Open to graduates of any approved Univ. or qualified med. practitioner. Applications to the University Registry, Cathays Park, Cardiff.

## Pathology

CAMBRIDGE UNIVERSITY. (i.) J. L. Walker Studentship in Pathological research, £300 p.a. for 3 yrs. Candidates need not be members of the Univ.

(ii.) Pinsent-Darwin Studentship in Mental Pathology, of about £227 for 3 yrs. Candidates need not be members of the Univ.

LIVERPOOL UNIVERSITY. Garrett International Fellowship, see p. 768.

LONDON UNIVERSITY. Charles Graham Medical Research Fund. A Scholarship in Pathology, value not exceeding £400 p.a. for 2 yrs., is awarded from time to time "to enable a young man to continue his pathological researches, and at the same time to secure his services to the School of Advanced Medical Studies connected with Univ. College Hospl. as a Teacher under the direction of the Prof. of Pathology." Applicants should give names of 3 referees, including a Teacher of the Univ. or College in which he has conducted his studies in Pathology. The Scholar is required to undertake teaching as well as research work. Applications to the Academic Registrar.

LONDON UNIV.: IMPERIAL COLLEGE. Henry George Plimmer Fellowship in Pathology, £308 p.a. Tenable at a recognized instn. at home or abroad, ordinarily for I or 2 yrs., but may be indefinitely prolonged. Candidates must be of British nationality. Further particulars from the Registrar of the College.

OXFORD UNIVERSITY. Philip Walker Studentship for Research in Pathology. £200 p.a. for from I to 5 yrs., not restricted to members of the Univ., open to women as well as men.

## Preventive Medicine

MANCHESTER UNIVERSITY. Sheridan Delépine Research Fellowship in Preventive Medicine, £300 biennially. Open to graduates in Med. of any approved Univ. or to med. practitioners with approved registrable qualifn. Next award 1932. Applns. by June 1.

# Tropical Medicine and Hygiene

LONDON UNIV.: LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, Keppel Street, London, W.C.r. (i.) Wandsworth Scholarship for research in Trop. Med. and Hygiene £370 p.a., plus overseas allowance, for 1 yr. or 3 yrs. Tenable abroad. Preference given to a British subject.

(ii.) Tropical Diseases Research Fund. This fund exists for the purpose of research work at home or abroad by the School, in connexion with investigation into tropical diseases. Capital £26,000; income available about £1300 p.a. Grants both of capital and income are applied to specific research in trop. diseases from time to time.

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(iii.) Edward John Stanley Memorial Fund (1909). Founded by the late Lord and Lady Sheffield. Capital £1200; the accumulated yearly income of £54 is applied periodically, at the discretion of the Board of Management, in aid of specific pieces of research in trop. diseases.

Further particulars from the Secretary of the School.

#### Tuberculosis

LIVERPOOL UNIVERSITY. For Ridgeway Research Scholarships, see under Diseases of Children.

THE MEDICAL RESEARCH COUNCIL, 38 Old Queen St., Westminster, S.W.I. Dorothy Temple Cross Research Fellowships, not less than £300, plus travelling expenses, tenable normally for I yr., are given for work in tuberculosis. 2-4 awarded annually. The value of these Fellowships may be increased in view of the qualifications of candidates and programme of work proposed.

Wales, Univ. of: Welsh National School of Medicine. *Cecil Prosser Research Scholarship* in Tuberculosis, £250 for 1 yr. Open to graduates of any approved Univ. or qualified med. practitioner. Applications to the University Registry, Cathays Park, Cardiff.

## 17. SCIENCE (General)

BEIT FELLOWSHIPS FOR SCIENTIFIC RESEARCH. Founded by Sir Otto Beit, Bart., K.C.M.G., F.R.S., in 1913 for advancement of Science by means of research. At present £250 p.a. for 2 yrs. subject to report at end of first year. Tenable at Imperial College of Sc. and Tech.. London, under supervision of a Prof. Fellows are required to devote their whole time to their research and to hold no appointment, paid or unpaid, without sanction of the Trustees. Open to men or women under 25 yrs. of age, of European descent by both parents, who have taken a degree in any Univ. in the British Empire, or Diploma or Associateship of any College approved by the Trustees. Not open to holders of any other Scholarship or Fellowship. Elections, advertised 3 mos. in advance, are made annually in July. Applications should give full information as to qualifications, previous career, general character of proposed research, whether applicant has private means sufficient to carry on the research for 2 yrs. without aid of Fellowship, names of not more than 3 referees, including one on the staff of the Univ. or College or a College of the Univ. at which the degree, etc., was obtained. Testimonials should not be sent. Capacity for research, personal record. and importance of proposed research will be taken into consideration. Inquiries may be addressed to the Rector of the Imperial College, South Kensington, London, S.W.7.

BELFAST, QUEEN'S UNIVERSITY. Musgrave Research Studentships, £200 each, open to British subjects, graduates of at least one year's standing in a Univ. of the British Empire, for research in Pathology, Biology, Chemistry, Physics, Physiology. Latest date for applications (10 copies and not more than 2 testimonials as to fitness for research)—June 15.

CAMBRIDGE UNIVERSITY. Gordon Wigan Fund, £300 p.a., for scientific educn, or research.

CAMBRIDGE UNIV.: GIRTON COLLEGE. Yarrow Fellowship, value £300 p.a. for 3 yrs. for research in mathematical, phys. and nat. sciences (incl. Chem., Elect., Eng., Bot., Geol., Med., Agric., etc.). Open to women who are graduates or have taken Hons. in a final degree examn. of any Univ., and to members of Girton Coll. Roll. Tenure as from July 1 or Oct. 1 at Fellow's option. Applns. to Secy. of Coll. not later than Feb. 1. Next award 1932.

Carnegie Trust for the Universities of Scotland. See p. 751 above.

THE DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH (16 Old Queen St., London, S.W.I) maintains a number of research stations, particulars of which are given in Appendix XXIV.

The Department also makes grants to individual research workers, engaged mainly in Univs. and Colls., under the following headings: (a) Maintenance allowances to students to enable them to undergo tranning in research; (b) Senior Research Awards (strictly limited in number) to enable young investigators of exceptional promise and proved capacity to devote their whole time to original research; (c) Grants to investigators of acknowledged standing to enable them to develop lines of research of exceptional timeliness and promise.

During the academic year 1930-31 the numbers of grants made in these categories were (a) 135, (b) 16, (c) 46. The scheme is intended to supplement and not in any way to supersede existing provision, national or local, for post-graduate research. The grants are restricted in all cases to British subjects resident in Gt. Britain. Full particulars in the pamphlet, Notes on Grants to Research Workers and Students, obtainable from H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2, price 2d.

Particulars of the existing 22 Industrial Research Associations established in co-operation with the Dept. are given in Appendix XXIV. Of these, 18 are in receipt of grant aid under the Department's scheme for assistance to research associations. The remaining four (Colliery Owners, Motor-cycle, Printing, and Shale Oil) are working without the assistance of grant under the scheme. In addition, grants are made to the National Federation of Iron and Steel Manufacturers, which carries out industrial research on problems of iron and steel production under the auspices of the Iron and Steel Industrial Research Council, a subsidiary body of the National Federation, and to the Institution of Automobile Engineers, in respect of the work of an organization, recently established under its auspices, for the conduct of research and standardization in the motor industry. The latter scheme involves the termination of the existence of the Research Assn. of British Motor and Allied Manufacturers as a separate organization.

Information as to the work of the Department will be found in the Annual Report for 1930-31, published by H.M. Stationery Office. The report includes an appendix describing developments in the organization of industrial research in the overseas Dominions.

London University. (i.) Dixon Fund for assisting Scientific Investigations. Income available for grants—about £275. Applications receivable by the Principal (from whom further particulars can be obtained) between April 1 and May 15. Full information required as to nature and objects of research proposed, estimated amount required (detailed estimate to be given), any previous grant received for same object, any apparatus of permanent value needed. Names of two referees to be given. Grants are made from the fund annually by the Senate for purchase primarily of apparatus and materials of a special nature to be used in scientific investigation. Instruments, specimens, etc., purchased out of grants to be returned to the Univ. Published results of researches must contain a reference to the Fund, and 10 copies be supplied to the Univ. Preference given to applicants who are graduates of the Univ. or who undertake to work in a Dept. or School of the Univ. or other Instn. connected therewith.

(ii.) Keddey Fletcher-Warr Studentships for Post-graduate Research in Science to be conducted in the British Isles or other approved place. Value £200 for 3 yrs., renewable. Open to men and women of European descent who are graduates of some British Univ. or have qualified for such graduation, but preference is given, other things being equal, to a graduate of London of small or no private means. Awardable from time to time as notified in the Public Press.

NOTTINGHAM UNIVERSITY COLLEGE. Three post-graduate scholarships in Pure and Applied Science up to the value of £100 each and tenable for 1 or 2 yrs. may be awarded each year to suitable candidates. Open to graduates of any approved British Univ. Applications must be made by internal students of the Univ. of London not later than the second day following the pubn. of the Degree Examn. Lists and by candidates from other Univs. not later than July 21.

THE ROYAL COMMISSION FOR THE EXHIBITION OF 1851 offers: (i.) Science Research Scholarships to Overseas Universities, to enable selected students who have already completed a full University course and given sufficient evidence of capacity for scientific investigations to devote themselves for 2 years to research work under conditions most likely to equip them for practical service in the scientific life of the Empire. Value, £250 p.a., with supplements in certain cases. Tenable ordinarily for 2 yrs., and in exceptional cases for 3 yrs., at any institution approved by the Commrs., but not, except in very special circumstances, in the Dominion in which the scholar has received his scientific education; open to British subjects of age (except in very special circumstances) under 26 yrs. At present not less than 8 (Canada 3, Australia 2, S. Africa, N.Z., and Irish Free State, I each) are offered annually; recommendations receivable (South Africa, Irish Free State, May 1) (Australia, N.Z., and Canada, June 1) from the following Univs.: Alb., B.C., Dal., McG., Manit., Queen's (Ont.), Sask., Tor., and any of the Univs. of Australia, N.Z., S. Africa, and the Irish Free State. A Scholar is not permitted to hold any position of emolument likely to conflict with the devotion of his whole time to the objects of the Scholarship, nor to accept any additional emoluments without the previous consent of the Commrs.

(ii.) Senior Studentships, at present 5 in number, each of £400 p.a. with supplements in certain cases, for 2 yrs. or, in special cases, for longer; open to British subjects not (except in very special circumstances) more than 30 yrs. of age, on recommendation, receivable up to May I, by Profs. and Heads of Depts. through the executive authorities of such Institutions as may be invited by the Commrs. to nominate; tenable at any Institu. at home or abroad approved by the Commrs. The student is not permitted to undertake any work likely to conflict with the devotion of his whole time to the objects of the studentship, but a limited amount of time may, with the approval of the Commrs., be spent in delivering an advanced course of lectures. He is not debarred from holding another position of emolument, but in such cases the Commrs. may modify the value of the studentship. Women are eligible for all the above.

Address of the Secy. to the Commrs., r Lowther Gardens, Exhibition

Rd., London, S.W.7.

THE ROYAL SOCIETY, Burlington House, Piccadilly, London, W.I. (i.) Foulerton Research Fund. (a) Research Professorships, with stipend f1400-f1500 p.a. Duties: To conduct, in a place approved by the President and Council of the R.S., such original researches in medicine or the contributory sciences, on lines approved of by the President and Council, as shall be calculated to promote the discovery of the causes of disease and the relief of human suffering. The Profs. shall devote the whole of their time to research. Tenable for 5 years in the first instance. the appointment being thereafter renewable for further periods of not more than 5 years at a time. (b) Research Studentship of £700 p.a., restricted to British subjects. Duties: To conduct researches in medicine or the contributory sciences, under the supervision and control of the Foulerton Committee, to whom the student will be required to report from time to time on the progress of his work. Tenable for 3 years and renewable from year to year, with a maximal total tenure of 6 years from the first award. Incumbents: (a) Prof. A. V. Hill and Prof. E. D. Adrian; (b) Dr. A. S. Parkes.

(ii.) Yarrow Research Professorships for research (whole-time) in Math., Physical, Chem., or Engineering Sciences. Value, £1000-£1400 p.a. Tenable at a University or other place to be approved by the President and Council of the Royal Society for a period of 5 years, the appointments being renewable for further successive periods of 5 years. Incumbents: Prof. A. Fowler, Prof. G. I. Taylor, and Prof. O. W. Richardson.

(iii.) Mackinnon and Moseley Research Studentships. Each of the value of £350 p.a. Tenable in the first instance for 2 years, but renewable in exceptional cases from year to year, total length of tenure not to exceed 5 years. Mackinnon Studentship for "furthering Nat. and Physical Sc., including Geol. and Astron., and . . . original research and investigation in Path." Moseley Studentship for "the furtherance of experimental research in Path., Physics, and Chem., or other branches of science, but not in Pure Maths., Astron., or any branch of science which aims merely at describing, cataloguing, or systematizing."

(iv.) Smithson Research Fellowship in Natural Science. The Royal

Society hold the capital of the Fund in trust. The income is administered by a Joint Committee of the Society and the Univ. of Cambridge. The Fellowship, £800 p.a. (which may rise to £850 in 3rd and 4th yr. and thereafter to not more than £900), with superannuation provision, is open normally to British subjects of either sex, including subjects of the Dominions, Colonies, and Indian Empire; but the Committee may in special circumstances invite a foreigner of scientific distinction to apply. Preference to candidates not over 35 yrs. of age. The holder will work in the Univ. of Camb, if appropriate laboratory accommodation is available.

(v.) Sorby Research Fund for original Scientific research. The income, about £600, is devoted to maintaining a Fellowship tenable ordinarily in the Univ. of Sheffield for 5 yrs., renewable for further periods. No permanent duties outside the research work may be undertaken. Appointments are made by a Committee composed of 4 persons appointed by the Council of the R.S. and 3 appointed by the authorities of the Univ. of Sheffield.

For all the above appointments applications are invited by public advertisement.

(vi.) Scientific Relief Fund (income about £700 p.a.) to aid scientific men or their families requiring assistance.

(vii.) Minor Funds: Tyndall Mining Research, income about £40 p.a., for a studentship; Gunning, about £35 p.a.; Joule, about £70 p.a.; Lawrence, about £170 p.a., for research in Diseases in man and animals.

(viii.) Government Grants for Scientific Investigations. The conditions are notified annually in time for applications to be received by March 31. Only British subjects are eligible. Appropriations in 1931 numbered 106, the amounts ranging between £5 and £600; total

amount distributed £6724.

(ix.) Medals. Copley, for Philosophical research (any country); Rumford (biennial), for useful discovery in Light or Heat, in any part of Europe; Royal (2), for advancement of Natural Knowledge; Davy, for Discovery in Chemistry in Europe or Anglo-America; Darwin (with grant of froo, biennial), for work in Darwinian field; Buchanan (with money grant, quinquennial), for service to Hygienic Science or Practice; Sylvester (with money grant, triennial), for Mathematical Research; Hughes (with money grant), for discovery in Physical Sciences, particularly Electricity and Magnetism. The last four are open to foreigners as well as to British subjects.

# 18. SCIENCE (Special Subjects)

## Bio-Chemistry

LISTER INSTITUTE OF PREVENTIVE MEDICINE, Chelsea Bridge Road, London, S.W.I. The Grocers' Company Research Studentship, in Bio-Chemistry, £250 p.a., tenable for 1 yr., with possible extension for 2nd yr. Open to British subjects. Vacancies advertised. Applns. to Sec.

LIVERPOOL UNIVERSITY. Johnston Colonial Fellowship in Bio-Chemistry, £100, tenable for r yr., offered annually. Failing a candidate in Bio-Chem., the Profs. of Pathol. and Physiol. shall be invited to nominate a candidate. Open in the first place to members of Colonial Univs. and Med. Schools (without, however, excluding Colonials who may possess British qualifications). Applications to be sent to the Dean of the Fac. of Med. not later than May 31.

LONDON UNIV.: UNIVERSITY COLLEGE. Bayliss-Starling Memorial Scholarship. See under Physiol. below.

# Biology (Animal Morphology)

CAMBRIDGE UNIVERSITY. (i.) Balfour Studentship in Biological research, especially in Animal Morphology, £300 p. a. for 3 yrs.; student need not be a member of the Univ., but must study in it for at least 3 terms.

(ii.) Balfour Memorial Fund. Grants may be made from this fund for original research in Biology, especially Animal Morphology, to the Balfour Student or to any other person engaged in such research.

#### **Biometrics**

OXFORD UNIVERSITY. Weldon Memorial Prize (endowment, £1000), awarded once in 3 years, for contribution in 6 preceding years to Biometric Science.

## Botany

CAMBRIDGE UNIV.: GIRTON COLLEGE. Ethel Sargant Studentship for research in Botany, value floo, for the year 1932-33; open to women who are graduates or have taken honours in a final degree examn. of any Univ. in the British Isles. Applications to the Secretary not later than June 1, 1932.

## Chemistry

CHEMICAL SOCIETY. The Research Fund of the Chemical Society was estabd. in 1876 to assist investigators by defraying the cost of expensive materials. The income from the Fund, incl. that from the donation of the Goldsmiths' Company and from the Perkin Memorial Fund, amounts to about £570 a yr. The Committee meets in June and Dec. to consider applications for grants. The income from the Goldsmiths' donation is mainly devoted to the encouragement of research in Inorg. and Metallurgical Chemistry, and that from the Perkin Memorial Fund for investigations connected with the Coal Tar and allied industries. The grants made during 1931 amounted to £641.

DURHAM UNIV.: ARMSTRONG COLLEGE, Newcastle-upon-Tyne. Johnston Chemical Studentship and Prize, value £150 for 1 yr., awarded on the results of an examn. in Chem. with Crystallography or Mineralogy or Bio-Chemistry, tenable at the College, involving at least 24 hours per week throughout the session. Open to B.Sc. of any British Univ. of not more than 3 yrs.' standing from graduation. Evidence of previous training and ability to conduct an original Chem. investigation is required. Applications to Registrar.

Institute of Chemistry.  $Pedler\ Research\ Scholarship$  in Chemistry.  $See\ App.\ VIII.$ 

MANCHESTER UNIVERSITY. Sir Clement Royds Memorial Scholarship in Chemistry, £300 for 1 yr., renewable for 2nd, and possibly 3rd yr. Offered biennially. Open to British subjects of Brit. descent born in, or inhabitants of Lancashire, with preference to candidates born in, or inhabitants of, Rochdale. Next award 1932. Last date of appln. June 1.

Ramsay Memorial Fellowships. The Trustees (Acting-Chairman, Sir Robert Waley Cohen, K.B.E.; Secy., C. O. G. Douie, University College, London, Gower St., London, W.C.1) award from time to time 3 Fellowships, value £300 a yr. for 2 yrs., for Chemical research. They can be held in any Univ. or other place in the U.K. possessed of the requisite facilities for research; also in exceptional circumstances in other parts of the British Empire, and, by special permission of the Trustees, elsewhere. One is limited to candidates nominated by the Univ. and the Royal Technical College, Glasgow. Fellowships are also provided in connexion with the following Dominion and Foreign countries: Canada, Czechoslovakia, France, Greece, Holland, Italy, Japan, Spain, Sweden, and Switzerland. The value is normally £300 a year, but some of the fellowships are of greater value.

# Mathematics See Arts (Special Subjects)

## **Physics**

CAMBRIDGE UNIV.: PEMBROKE COLLEGE. Gabriel Stokes Studentship for research in Physics, about £425 p.a. for 3 yrs., renewable for a term not exceeding 5 yrs. Open to graduates (preferably of Cambridge) of from 23 to 28 yrs. of age. Next award, 1932 or later.

Manchester University. John Harling Fellowship for research in physical science. £200 and occasionally more; renewable for 2nd and possibly 3rd yr. Open to all persons who can furnish satisfactory evidence of ability to pursue research. Next award not fixed.

# Physiology

LIVERPOOL UNIVERSITY. Garrett International Fellowship, see p. 768.

London Univ.: University College. The Bayliss-Starling Memorial Scholarship in Physiol. and/or Bio-Chemistry (founded 1929) value about £120 p.a. with exemption from tuition fees, tenable for 1 to 3 yrs. Candidates must be graduates of the Univ. of London or any other Univ. approved by the College Committee for the purpose, or undergrad. of the Univ. of London or any other approved Univ. as aforesaid of suitable standing in Sci. or Med. Applns. to the Secretary of the Coll., Gower St., London, W.C.I, early in May.

MANCHESTER UNIVERSITY. Robert Platt Scholarship for research in Physiology, £90 for 1 yr., renewable for 2nd and possibly 3rd yr. Open to candidates between 18 and 25 on Jan. 1 in year of award, without further restrictions. Next award 1932. Applns. by June 10.

## Zoology

ZOOLOGICAL SOCIETY, Regent's Park, London, N.W.8. The Society offers a research fellowship in Comparative Pathology, value £600 p.a., of unlimited duration, awarded in 1928 to Lt.-Col. A. E. Hamerton, C.M.G., D.S.O., late R.A.M.C.; and one of £450 for 5 yrs. (Anatomical Research), next award 1932.

#### 19. THEOLOGY

CAMBRIDGE UNIVERSITY. Hort Memorial Fund, £65 p.a., for grants to persons engaged in Biblical, Hellenistic, or Patristic research, or undertaking connected therewith.

Union Theological Seminary, N.Y. City. The Mills, Hugh Black, Jarvie and Sewickley Fellowships in Theology, \$1200 each for 1 yr. with possible renewal, for advanced post-graduate work. The Mills Fellowship open to theol. students of high grade, graduates of the English and Welsh Univs., the remainder to graduates of Scottish Univs. of similar standing. Applications for the Mills Fellowship to Rev. the Principal, Mansfield College, Oxford, for the remaining three to Prof. G. S. Duncan, St. Mary's College, St. Andrews. Latest date May 31.

#### B. DOMINIONS

#### 20. GENERAL

Carnegie Corporation of New York. A fund sufficient to provide during the next four years three grants of £320 each p.a., tenable for 1 yr., has been established by the Carnegie Corporation of New York and is administered by the Universities Bureau of the British Empire. These grants will be awarded by the Executive Committee of the Bureau to members of the teaching and administrative staffs of overseas Universities of the Empire on the nominations of the Heads of Universities. The recipients are required to visit Great Britain for research work or special inquiries. They must also undertake to return to their Universities. The first three grants will be awarded in 1932. Applications should be lodged with the Heads of Universities. Further information from the Universities Bureau of the British Empire, 88a Gower Street, London, W.C.1.

#### 21. CANADA

McGill University, Montreal. The A.A. Browne Memorial Fellowship (endowment, \$10,000), open to graduates of any recognized medical school. Special preference given to obstetrics and gynæcology.

NATIONAL RESEARCH COUNCIL, CANADA, Ottawa. In order to develop a corps of highly trained research men for the Univs., technical schools, industries, and tech. depts. of Dominion and Provincial Govts., the Council awards bursaries (value \$600), studentships (value \$750), and fellowships (value \$1000) for post-graduate training in Science. For a fellowship demonstrated ability to carry on independent research is required. In the last 11 yrs. 178 persons have completed their train-

ing under these awards, and of these 144 are actively engaged in scientific or associated work in Canada. See also Appendix XXIV., B. I.

The Council also makes research grants to research workers in the Univs. and other research laboratories for specific investigations. (For further information, see Canada Yearbook, 1931, pp. 989-93.)

QUEEN'S UNIVERSITY, Kingston, Ont. (i.) Two Fellowships in Arts, \$500 each, for 1 yr. Open to men and women, B.A. in Hons. at Queen's Univ. or with an equivalent degree elsewhere. One of these may be awarded as a Travelling Fellowship, otherwise tenable at the Univ. (ii.) Also 2 Fellowships in Arts, \$250 each for 1 yr. Open under same conditions as above. Applications not later than April 1 to the Registrar.

(iii.) Milton Hersey Fellowship for research in Chemistry, \$500 for 1 yr. Open to graduates of all Univs. and technical colleges. Applications up to May 1 to the Registrar. If no appointment made, further

applications up to Sept. 2.

TORONTO UNIVERSITY. (i.) Open War Memorial Fellowship, value \$900, to be awarded to grads. of any approved Univ. in the Dominion of Canada enrolled or intending to enrol in the School of Graduate Studies for the purpose of proceeding to a degree in any dept. of Toronto Univ. The Fellowship is accompanied by the remission of tuition fees. Particulars from the Secretary-Treasurer, Alumni Federation, 43 St. George St., Toronto 5. Applications to be made before April 15.

(ii.) Open Fellowship of \$500 in the School of Graduate Studies.

Particulars as above.

(iii.) The Nipissing Mining Company Research Fellowship in Mining

Engin., annual value \$1100. Open to grads. of any Univ.

(iv.) The McCharles Prize, value \$1000 in money, awarded from time to time for: (1) The invention or discovery of any new and improved process for the treatment of Canadian ores or minerals of any kind, after such process has been proved to be of special merit on a practical scale; or (2) for any important discovery, invention or device that will lessen the dangers and loss of life in connexion with the use of electricity in supplying power and light; or (3) for any marked public distinction achieved in scientific research in any useful practical line. Open to any Canadian (i.e. any person Canadian born who has not renounced British allegiance), student or otherwise. In the case of (1) domicile in Canada is an essential condition.

(v.) The James H. Richardson Research Fellowship in Anatomy, value \$500 p.a., tenable for 1 yr., with possible renewal for not more than 2 addnl. yrs. Open to grads. in Med. of Toronto Univ. and of such other Univs. and Med. Schools as may be approved by the Nominating Committee and to students in Toronto Univ. who shall have completed the 3rd yr. of med. course. The holder must devote his whole time to

investigation under the Prof. of Anat.

(vi.) Charles Mickle Fellowship. Endowment (\$25,000) awarded annually to that member of the medical profession who is considered by the Council of the Fac. of Med. of the Univ. to have done the most during the previous 10 yrs. to advance sound knowledge of a practical kind in medical art or science.

(vii.) The Alexander McPhedran Research Fellowship in Clin. Med., value \$1200 p.a., tenable for 1 yr., renewable. Open to grads. in Med. of Toronto Univ. and of such other Univs. and Med. Schools as the Fac. of Med. may approve. The holder must devote his whole time to investigations under the direction of the Prof. of Med., to whom applications for nominations should be forwarded not later than May 1 of each yr.

(viii.) A no. of appointments as Research Fellows for whole-time service for 10 months, with a stipend of \$1000, are made annually to grads. in Dentistry of any recognized Univ. Res. Fellows may be permitted to proceed to the degree of B.Sc. in Dentistry. Further particulars from the Dean of the Fac. of Med.

## Travelling

THE CANADIAN FEDERATION OF UNIVERSITY WOMEN has founded a Scholarship enabling a woman graduate of a Canadian Univ. to study at a Univ. of any other country represented in the Internat. Federation. Information obtainable from the Secy., International Federation of University Women, Crosby Hall, Cheyne Walk, London, S.W.3.

IMPERIAL ORDER DAUGHTERS OF THE EMPIRE. The I.O.D.E. award post-graduate scholarships for study in Britain. The list of post-graduate students for the session 1931–32 includes I girl and 8 men who come from British Columbia, Alberta, Manitoba, Ontario, New Brunswick, Nova Scotia, Quebec, and Prince Edward Island. Address of the Order—Dominion Bank Chambers, 238 Bloor Street East, Toronto 5. Cables—Iode, Toronto.

Queen's University, Kingston, Ont. For Travelling Fellowship, see above.

#### 22. AUSTRALIA

AUSTRALIAN SCIENCE AND INDUSTRY ENDOWMENT FUND. Under the Science and Industry Endowment Act, 1926, the Commonwealth Government has established a capital fund, the income from which is to be used to provide assistance (a) to persons engaged in scientific research, and (b) in the training of students in scientific research. Secretary, Gerald Lightfoot, M.A., 314 Albert Street, East Melbourne, Victoria, Australia.

## 23. NEW ZEALAND

New Zealand Department of Scientific and Industrial Research, Wellington, N.Z. Four National Research Scholarships, tenable for one year, and of a value of £180, plus £25 for apparatus, books, etc., are awarded each year to Univ. graduates proposing to specialize in some branch of industrial research. These scholarships may be renewed for a further year.

The New Zealand Institute, Wellington, New Zealand, established in 1867, controls 2 funds which are available for grants to aid scientific workers: the Government Research Grant Fund and Hutton Memorial Fund. It also controls 3 Memorial Funds from which prizes are awarded at intervals for distinguished scientific work. It publishes annually its Transactions and Proceedings.

#### 24. SOUTH AFRICA

Cape Town University. Smartt Memorial Scholarship for research in subjects bearing upon Agriculture. £250 p.a. for 2 yrs., but may be extended for a third year at the discretion of the Univ. Council. Tenable at the Univ. of Cape Town or at such other place in S. Africa as may be approved by the Senate. Open to candidates who possess an approved univ. degree. The next award will be made in 1933 or 1934. Particulars and copies of the regns. governing the award of the scholarship may be obtained from the High Commissioner for the Union of South Africa, 73 Strand, London, W.C.2.

DEPARTMENT OF AGRICULTURE, Pretoria. Scholarships in Agric., £200 p.a., open to graduates in Agric. of the S. African Univs., 18 to 25 yrs. of age, may be awarded. Tenable overseas. Further information obtainable from the Secretary for Agriculture, Union Buildings, Pretoria.

The Empire Marketing Board, 2 Queen Anne's Gate Buildings, London, S.W.I, in agreement with the Govt. of the Union of S. Africa, established in 1930 3 Research Fellowships, tenable at the Veterinary Research Station, Onderstepoort, Pretoria, for 3 yrs. with possible renewal for further 2 yrs. Value normally £800-£1000 p.a., possibly higher in sp. cases. One Fellowship relates to methods of tissue culture and work with filterable viruses; another to bacteriol. and physiological work relating to animals, esp. ruminants; and the third to methods of extracting toxic substances from plants, and determining the nature of such substances.

THE RESEARCH GRANT BOARD OF THE UNION OF SOUTH AFRICA awarded up to 1921 scholarships to Univ. graduates (and sometimes others) undertaking research. Since then no research scholarships have been awarded.

Oversea Scholarships for Study of Commerce and Industries. These scholarships are of the value of £250 per annum for periods of 2 or 3 yrs. Since its inception and up to 1929 the Board has allotted 10 of these scholarships. Since that year the award of these scholarships has been in abeyance.

Carnegie Corporation of New York. The Board, on the invitation of the Carnegie Corporation, is assisting in the distribution and administration of funds contributed by the Corporation in support of research in South Africa. The programme is for a period of five years, from 1928 to 1932 inclusive, and includes, in addition to grants for research purposes, travelling allowances for men and women based on the plan of the Guggenheim Fellowships of the United States of America.

SIR HERBERT BAKER SCHOLARSHIP in Architecture, about £300 for 1 yr. Awarded at intervals. Open to all S. African students of Architecture under 30, with at least 6 yrs.' architectural training. Tenable in Europe, the greater part at the British School at Rome. Applns. to the Trustees, Box 2266, Johannesburg.

WITWATERSRAND, UNIVERSITY OF THE, Johannesburg. Herbert Ainsworth Scholarship in Modern History, £150 p.a. for 2-3 yrs. (may

be increased to £250 while studying in Overseas Univ.) plus £50 for books. Open to graduates of a S. African Univ. 1 yr. at Witwatersrand, free choice thereafter. Further particulars from the Registrar.

#### 25. INDIA

GOVERNMENT (STATE) SCHOLARSHIPS. Two, tenable for 3 yrs. in the U.K. for advanced study. Each £300 p.a. at Oxford and Cambridge, £250 at other Univs. Bonus £40 to £50, according to place of study. Awarded in alternate years to the best Hindu and Mahomedan candidates from the Univs. of Bengal. Applications to the Registrar, Calcutta Univ.

THE MAYNARD GANGA RAM PRIZE, value Rs. 3000, for a discovery, or an invention, or a new practical method tending to increase agricultural production in the Panjab on a paying basis. Some part of the discovery, invention, etc., must be the result of work done since the foundation of the prize in 1925. Open to all irrespective of caste, creed, or nationality. Govt. servants are also eligible. Applications in competition for the next award should reach the Director of Agriculture, Panjab, Lahore, on or before Dec. 31, 1932.

SIR MUNGALDAS NATHUBBAR SCHOLARSHIPS in Technology (2 every yr. and an additional one every 3rd yr.). Tenable in England. Rs. 2000 p.a. for 3 yrs., with possible extension. Open to Hindu graduates. Appln. to the Registrar, Univ. of Bombay.

#### C. MANDATED TERRITORY

#### 26. PALESTINE

HEBREW UNIVERSITY. Lord Plumer Fellowship in Arabic Studies (incl. Arabic Lit. and Moslem Hist., Religion, Art, and Archæol.), value f.P. 100 for 1 yr. Open to graduates of English, European or American Univs. Candidates should have a working knowledge of Hebrew, and must reside in Jerusalem for not less than 6 months. Applicants should send curriculum vita and testimonials with account of research work they are engaged in to the Registrar not later than Nov. 30, 1932.

#### D. FOREIGN COUNTRIES

#### 27. BELGIUM

Fondation George Montefiore offers triennially a prize, value 22,000 francs, "au meilleur travail original présenté sur l'avancement scientifique et sur les progrès dans les applications techniques de l'électricité dans tous les domaines, à l'exclusion des ouvrages de vulgarisation ou de simple compilation." Secrétaire-archiviste de la Fondation George Montefiore à l'hôtel de l'Association, rue Saint-Gilles 31, Liége (Belgique).

#### 28. FRANCE

Bourses Universitaires. See p. 860. Prix Hollandais, 10,000 fr., and Prix d'Ault du Mesnil, 1800 fr., for work in physical or prehistoric anthropology, triennially, to be awarded in 1933. Institut International d'Anthropologie, 15 rue de l'École de Médecine, Paris, vi.

University of Paris. Bourse de Curie (Carnegie Foundation) in Radiology, amount variable. Tenable for i yr., renewable, at the Pierre Curie laboratories, Paris. Open to distinguished scientists of all countries. Inquiries to be addressed to Le Doyen de la Faculté des Sciences, l'Université de Paris.

#### 29. GERMANY

DEUTSCHE AKADEMIE, Munich. Thomas Carlyle Stipendium, value RM. 1200, for study of German culture in any Univ. of the German Republic. Open to English and Scottish graduates of either sex (actual or intending teachers) of any English or Scottish Univ. on the nomination of their Vice-Chancellor. Nominations to be received by the Secretary, Universities Bureau of the British Empire, 88A Gower St., London, W.C.I, not later than June 30.

THE JOSEFINE AND EDUARD VON PORTHEIM FOUNDATION. This fund has been established by Geheimer Hofrat Prof. Dr. Victor Goldschmidt in memory of his wife's family at the University of Heidelberg to enable English University graduates to study at the University of Heidelberg for a semester or longer. Annual value about £145. awards, which vary in amount according to the length of time spent in Germany, are made by the Universities Bureau of the British Empire, 88A Gower St., London, W.C.1 (from which further particulars can be obtained) on the recommendation of the Vice-Chancellors and Principals of the Universities and University Colleges of Great Britain and Ireland. Recommendations are made in June each yr., and in 1932 will be confined to students in Physiology.

## 30. HOLLAND

ACADÉMIE DE DROIT INTERNATIONAL DE LA HAYE. A certain number of scholarships are awarded each yr. to persons attending the Académie who have written essays, reviews, or notable books on some branch of international law. Applications, accompanied by a copy of a scientific work published by the candidate, together with duly certified copies of Univ. or other diplomas, must be received by the President of the Curatorium before Mar. 31. Awards are made known on or about May 31. Particulars are obtainable from the Ministries of Public Edn. or profs. of internat. law in the various countries, and at the Secretariat, Peace Palace, The Hague.

VISSER INTERNATIONAL LAW PRIZE (triennial). Administered by Leyden Univ. (Legatum Visserianum). Maximum, 5000 guilders. Subject for next competition will be announced later. Language—

Dutch, English, French, or German.

#### 31. JUGO-SLAVIA

Jugo-Slav Government Scholarship in History, Language and Literature of Jugo-Slavia, open to subjects of Gt. Britain. 3500 dinars a month for 2 yrs. with possible extension for another yr. Tenable in Jugo-Slavia. Applns. to the Director of the School of Slavonia and East European Studies, 40 Torrington Sq., London, W.C.I.

#### 32. SPAIN

The Spanish Federation of University Women offers an annual Fellowship of 4000 pesetas tenable for study in Spain, and open to members of the Internat. Federation. Applications to be received by May. Information obtainable from the Secy., International Federation of University Women, Crosby Hall, Cheyne Walk, London, S.W.3.

## 33. SWEDEN

Nobel Prizes, founded by Alfred Nobel (d. 1896), awarded for contributions to the common good by workers in (a) Physics, (b) Chemistry, (c) Medicine or Physiology, (d) Literature, (e) the Preservation of Peace. The prizes, worth from Kr. 115,000 to Kr. 173,000 (1931) each, are awarded for (a) and (b) by the Swedish Academy of Science, for (c) by the Stockholm Faculty of Medicine, for (d) by the Swedish Academy of Literature, and for (e) by a committee elected by the Norwegian Storthing. Among the categories of persons qualified to propose candidates for prize (e) are Univ. Professors of Political Science and Law, of History, and of Philosophy. Particulars can be obtained from Nobelstiftelsens Styrelse, Sturegatan 14, Stockholm, Sweden. Among prize-winners of past years the following have a special interest for English-speaking students:

Physics: 1904, Lord Rayleigh; 1906, J. J. Thomson; 1907, A. A. Michelson; 1915, W. H. Bragg and W. L. Bragg; 1917, Ch. G. Barkla; 1923, R. A. Millikan; 1927, A. H. Compton and C. T. R. Wilson; 1928, O. W. Richardson; 1930, Sir Venkata Raman.

Chemistry: 1904, Sir Wm. Ramsay; 1908, E. Rutherford; 1914, T. W. Richards; 1922, F. Soddy, F. W. Aston; 1929, A. Harden; 1930, Hans Fischer.

Medicine or Physiology: 1902, Sir Ronald Ross; 1912, Alexis Carrel; 1922, A. V. Hill; 1923, F. G. Banting and J. J. R. Macleod; 1929, Sir F. Gowland Hopkins.

Literature: 1907, Rudyard Kipling; 1913, Rabindranath Tagore; 1923, W. B. Yeats; 1926, G. B. Shaw; 1930, Sinclair Lewis.

The Preservation of Peace: 1903, Sir W. R. Cremer; 1906, Theodore Roosevelt; 1912, Elihu Root; 1919, W. Wilson; 1926, Sir Austen Chamberlain and General Ch. G. Dawes; 1929. Frank B. Kellogg; 1932, Miss Jane Addams and Dr. Nicholas Murray Butler.

#### 34. SWITZERLAND

The Swiss Association of University Women offers a fellowship of 4000 Swiss frs. for research in Arts. The fellowship is tenable in

Switzerland from Oct. 1932 to Aug. 1933, and is open to all members of the Internat. Federation of Univ. Women. Information obtainable from the Secretary, I.F.U.W., Crosby Hall, Cheyne Walk, S.W.3.

#### 35. UNITED STATES OF AMERICA

The Institute of International Education, 2 West 45th Street, New York, has published a pamphlet entitled, Fellowships and Scholarships open to Foreign Students for Study in the United States, 1931 edition, which gives a very full list of such aids to advanced study. They are classified as follows: (i.) Unrestricted as to subject or nationality of holder; (ii.) for study in prescribed subjects, unrestricted as to nationality, and (iii.) for students from prescribed places.

In class (i.) there are more than 200 Fellowships for advanced study and research offered by 26 different Universities, and varying in value from free tuition to \$1500 a year. A number of Colleges and Universities (15) also offer student assistantships in various subjects open to qualified students of foreign birth. In class (ii.) there are several hundred Fellowships principally for research offered by the chief Universities and other learned bodies. In class (iii.) Fellowships for Research are offered to Canadian students by the American Council of Learned Societies, the National Research Council, the National Council of Parent Education, the Social Science Research Council, the Canadian Federation of Univ. Women, and the Pacific Coast Gas Assn. Fellowships for advanced study and research are offered to students in Great Britain by the American Association of Univ. Women, the Commonwealth Fund and the Rockefeller Foundation, as well as several of the large Univs. The list from which the above information is taken may be consulted at the Universities Bureau or at the American University Union, I Gordon Square, London, W.C.I.

Nearly all the American Univs. offer each year scholarships and junior fellowships of from \$200 to \$800, which are open to foreign students in competition with American students for work which would be described as undergraduate in this country. Most American Univs. close their scholarship lists about March 1. The principal foundations offering Fellowships to British subjects for which application can be made in this country are briefly described below.

The American Association of University Women, 1634 I Street, Washington, D.C., offers annually an International Fellowship, value \$1500, to enable a graduate to carry on a yr.'s research in some country other than her own. Open to all members of the Intern. Fedn. of Univ. Women. Further information from the Secy., British Federation of University Women, Crosby Hall, Cheyne Walk, S.W.3; or from the above.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. Fellowships in International Law, tenable wherever approved courses are offered. \$1500 plus \$300 passage money for Teachers; \$1000 for students. Open to graduates having knowledge of Intern. Law. Teachers should have had at least 1 yr.'s teaching in Intern. Law or related subjects. Applications to Committee on International Fellowships, 700 Jackson Place, Washington, D.C., U.S.A.

CHOATE MEMORIAL FELLOWSHIP, \$2300. Awarded on nomination and recommendation of the Vice-Chancellor of Cambridge to a British subject coming from Camb. to study in any dept. of Harvard Univ. Failing a candidate from Camb. the Vice-Chancellor may select and appoint a candidate from any other Univ. in the U.K.

COMMONWEALTH FUND FELLOWSHIPS, established 1925. Thirty awarded annually. Value about \$3000 each p.a., tenable ordinarily for 2 yrs. in one of the 27 institutions belonging to the Association of American Universities (see list in Appendix XXVI.). Candidates (who must be unmarried and not over 30 years of age) are nominated by universities in Great Britain and Ireland, and the final selections made by a Committee of Award, of which H.R.H. the Prince of Wales is Honorary Chairman, and Sir Walter R. Buchanan-Riddell, Chairman. Among other conditions of tenure is a requirement that at least 3 months must be spent in travel in the U.S.A. at the close of the first year of study. Address of Committee—35 Portman Square, London, W.I.

ENGLISH-SPEAKING UNION'S SCHOLARSHIPS. For British men and women teachers. Page Travelling Scholarships, £50 each and complete hospitality in America during Easter or summer vacation; Senior Page Scholarship, women only, £100. These scholarships are open to candidates from educational organizations. Chautauqua Scholarships (2), for the summer school, July and August, in the State of New York; covering cost of lectures and complete hospitality for 6 weeks. Applications receivable up to Feb. 1 by the E.S.U., Dartmouth House, 37 Charles St., Berkeley Sq., London, W.I.

Rockefeller Foundation Fellowships for research in the social sciences, tenable in U.S.A., France, Germany, Italy, and certain other countries. Intended primarily for graduates, men or women (25-35 yrs. of age), who have begun research and may be expected to produce important work in econ., sociol., statistics, administration; or, in certain cases, anthropol., geog., hist., and law, psychol., The regular stipend is \$1800 plus travelling expenses (in America) and univ. fees. Fellowships may be given for one, and in certain cases are renewable for a second yr. Applications are not invited from candidates. The procedure preferred is that the responsible academic or other authority, who knows the candidate's work and wishes to nominate him, should write to the Foundation's representative for Gt. Britain and Ireland, N. F. Hall, University College, Gower St., London, W.C.I.

Rose Sidgwick Memorial Fellowship. Established by Americans in memory of a member of the British Educational Mission which visited the U.S.A. in 1918, in recognition of her service in the cause of Anglo-American friendship. Administered by the American Assocn. of University Women. Value \$2000 (providing tuition and residence during term for 1 yr., and about \$400 in cash towards travelling expenses and incidental fees); tenable at any approved College or Univ. in the U.S.A. Open to British women (preferably from 25 to 35 years of age) of graduate standing. Awarded biennially. Particulars from Secy., British Federation of Univ. Women, Crosby Hall, Cheyne Walk, London, S.W.3.

## XXIV

# CENTRES OF SCIENTIFIC RESEARCH AND INFORMATION

## A. IN GREAT BRITAIN

## CENTRES OF SCIENTIFIC RESEARCH

- I. Botany and Agriculture.
  - (a) Soils and Crops (England and Wales). (Scotland). (Northern Ireland).
  - (b) Horticulture.
  - (c) Animal Pathology (England and Wales). (Scotland). (Northern Ireland).

- (d) Animal Husbandry (England and Wales). (Scotland). (Northern Ireland).
- (e) Agricultural Economics.
- (f) Food Preservation and Transport.
- (g) Agricultural Engineering.
- II. Forestry.
- III. Fisheries and Preservation of Fish.
- IV. Tides and Meteorology.
- V. Industrial.
- VI. Pure Science.
- VII. Medical.

#### CENTRES OF SCIENTIFIC INFORMATION

- VIII. Botany and Agriculture.
  - IX. Industrial (England and Wales). (Scotland).
    - X. Pure Science.
  - XI. Medical.

#### B. IN THE DOMINIONS. COLONIES AND DEPENDENCIES

CENTRES OF SCIENTIFIC RESEARCH AND INFORMATION

- I. Canada.
- II. Australia.

- III. New Zealand.
- IV. South Africa.
- V. India.
- VI. Ceylon.
- VII. Malaya.
- VIII. East Africa-Tanganyika Territory.
  - IX. Sudan.
    - X. West Indies-Trinidad.
  - XI. Bermuda.

#### C. INTERNATIONAL SETTLEMENT

XII. Shanghai.

#### A. IN GREAT BRITAIN

## CENTRES OF SCIENTIFIC RESEARCH

#### I. BOTANY AND AGRICULTURE.

Some description is given under this head of the principal centres in the U.K. for advanced study and research in Agricultural Science and the cognate pure sciences, but much fuller information will be found in a brochure published by the Ministry of Agriculture and Fisheries at the instance of the Imperial Agricultural Research Conference, 1927, entitled Facilities for Advanced Study and Research in Agricultural Science and Cognate Pure Sciences in the United Kingdom. 1929. Price 1s. net. Post free.

## (a) Soils and Crops (England and Wales)

- I. ROYAL BOTANIC GARDENS, Kew, afford to botanists, especially from the Colonies, facilities for carrying out scientific investigations in the Library, Herbarium, Economic Museums, and the Jodrell Laboratory. The principal work carried out is systematic and economic botany within the British Empire. Plants of economic importance are grown in the gardens and sent out to various parts of the Empire. Information is also supplied on botanical matters to all parts of the Empire. Research work is carried out on matters relating to Economic, Systematic, and Phytogeographical Botany and also in Mycology. Botanists should apply to the Director for permission to work in the Herbarium or in the Laboratory.
  - 2. Imperial Mycological Institute, see p. 815.
- 3. The National Institute of Agricultural Botany, Huntingdon Road, Cambridge, was established in 1919 to improve the yield and quality of farm crops by discovering and encouraging the use of better varieties and better seeds. The two main branches of the work are (a) Crop Improvement, covering field trials of farm crops at six regular sub-stations in England and Wales, and occasionally at other centres,

the distribution of seed of improved varieties, and at the Potato Testing Station, Ormskirk, the official trials of potatoes for immunity from wart disease, virus disease investigations, and general potato trials; (b) Official Seed Testing Station for England and Wales at Cambridge, which makes laboratory tests of the purity and germination of seed samples, and undertakes research work on seed problems. In approved cases facilities would be given for post-graduate research. Reports of work done are issued in the Institute's Journal. Periodical meetings of Fellows of the Inst. are held for discussion, etc. A course and examn. in the theory and practice of seed testing is usually held each summer; fee for course (four to five weeks), £5:5s.; for examn., £1:1s. Inquiries to be addressed to the Secretary.

4. The Rothamsted Experimental Station, Harpenden, Herts, founded in 1843, is controlled by the Lawes Agricultural Trust (Endowment Fund, £100,000), with which the Incorporated Society for Extending the Rothamsted Experiments (founded 1904) co-operates. Annual grants are received from the Ministry of Agriculture, which also gives capital funds for approved purposes. The Station is organized into the following 10 depts.: Bacteriol., Bot., Chem., Fermentation, General Micro-Biol., Insecticides and Fungicides, Physics, Plant Pathol. (mycology), Plant Pathol. (entomology), Statistics. The station has an area of 300 acres of land for the purpose of farm and experimental fields, and a library of 15,000 vols.

Subject to certain conditions, the Station receives post-graduate students, scholarship holders, etc., who are working for higher research degrees in agric. or pure science. No fees are charged to voluntary workers for the supervision of their work, but a charge will be made for the supply of apparatus, chemicals, etc.

All inquiries in the first instance should be addressed to the Secretary.

The Woburn Experimental Station now forms part of the Rothamsted organization; it consists of 138 acres of land, mainly light soil, Laboratory, Pot Culture, and Meteorological Stations.

In May 1929, as a result of the Imperial Agricultural Research Conference held in London in 1927, the IMPERIAL BUREAU OF SOIL SCIENCE was set up at Rothamsted as a central clearing house of information on soil problems throughout the Empire.

Provision is made for post-graduate research work, and for studies by agriculturists and others on leave from Agricultural Departments in the Empire.

5. Research Institute in Plant Physiology, Imperial College of Science and Technology, South Kensington, London, S.W.7. The work of the Institute is mainly directed to the elucidation of the plant physiological processes responsible for crop yield in the field and under glass. It works in close association with the Research Institutes at Rothamsted and East Malling. It is available for research in general plant physiology, chemical physiology, and the physiology of fungi. The laboratories are well equipped on the chemical and electrical sides and for experiments on the growth of plants under artificial light and controlled conditions of temperature. Requests for admission, together

with a full account of academic qualifications and training, should be sent to the Director.

6. Plant Breeding Institute, Cambridge. The main work of the Institute is connected with the problems of breeding improved types of the plants cultivated as farm crops in this country. Up to the present most progress has been made with cereal crops, but preliminary work on the possibilities of improving many other crops is being carried out, including brassicæ and the raising of seed potatoes free from various virus diseases. There are also facilities for research work in methods for testing the yielding capacity of crops; factors affecting yield; winter hardiness in barley and oats; the quality of wheat for bread, biscuit, and pudding making; disease resistance, etc. The experiment grounds are equipped with bird-proof cages for the protection of the more important hybrid cereals, with greenhouses, storage rooms, and a small machine room.

In accordance with the recommendation of the Imperial Agricultural Research Conference held in London in 1927, the IMPERIAL BUREAU OF PLANT GENETICS, for crops other than herbage plants, has been established at the Institute for the collection and dissemination of information on this subject throughout the Empire.

Inquiries to be addressed to the Director of the Inst.

7. Welsh Plant Breeding Station, University College, Aberystwyth. This Station conducts researches related to plant breeding especially for farmers in high rainfall districts, at high elevations, and generally under conditions of low fertility. Chief attention is therefore given to herbage plants. Oats is the only ordinary arable crop receiving serious attention. The station is well equipped for research in the foregoing directions. There is a 2-yrs.' course for graduates studying for the Ph.D. degree. Members of staffs of research or teaching institutions and of the Govt. Departments of Agriculture are admitted for shorter periods. Applications should be addressed to the Director, Agricultural Buildings, Alexandra Road, Aberystwyth, as long as possible in advance of proposed entry.

In accordance with the recommendation of the Imperial Agricultural Research Conference held in London in 1927, the Imperial Bureau of Plant Genetics, for herbage plants, has been established at the Institute for the collection and dissemination of information on this subject throughout the Empire. The Bureau issues Herbage Extracts quarterly.

Besides the Agricultural Depts. of the Univs. in Gt. Britain and N. Ireland, and agricultural colls. which are constituent parts of Universities, such as the South-Eastern Agricultural College, Wye (Univ. of London), the following independent colls. undertake research work.

8. HARPER ADAMS AGRICULTURAL COLLEGE, Newport, Salop, provides facilities for research workers in Agriculture, or in Chemistry, Mycology, Entomology or Economics in their application to Agriculture. The National Institute of Poultry Husbandry is located

at the College, and provides extensive facilities for poultry research. Reports are published in the form of separate bulletins as well as in journals, such as the *Journal of Agricultural Science*, *Bio-Chemical Journal*, and *Annals of Applied Biology*. Inquiries to be addressed to the Principal.

- 9. MIDLAND AGRICULTURAL COLLEGE, Sutton Bonnington, Loughborough, Leicestershire. Visitors admitted for research work in the Chemistry Laboratories, or in dairying or costings, at 63s. per week, including board and lodging. Reports on experiments and small matters of research are issued from time to time. Prospectus free; apply to the Principal.
- 10. Seale-Hayne Agricultural College, Newton Abbot, Devon. On the College Estate of 339 acres, a commercial farm of 250 acres is maintained, as well as a demonstration small-holding of 25 acres. There is a Forest Nursery, Cider stock-raising plot,  $\frac{1}{2}$  an acre of pyrethrum, grown experimentally for insecticidal purposes, and breeding trials on Roscoff broccoli. Research work is carried out in connexion with insect and fungus pests, soil problems, Economic investigations, Dairy bacteriology, and certain specific animal diseases, such as Johnes disease, mammitis, and contagious abortion. The college farm specializes in the production of Certified milk. Experts from overseas proposing to visit the College will be welcome, and arrangements can be made for them to work there temporarily. Results of experiments are published from time to time in pamphlets.

## Soils and Crops (Scotland)

Persons wishing to avail themselves of the resources of any of the following centres (a) 11-16, (c) 7, (d) 5-7, should call in the first instance for suggestions and advice on the Department of Agriculture for Scotland, Queen St., Edinburgh.

- II. MACAULAY INSTITUTE FOR SOIL RESEARCH, Craigiebuckler, Aberdeen. The Institute, which was established through the generosity of Mr. T. B. Macaulay of Montreal, consists of laboratories and experimental grounds at Craigiebuckler, Aberdeen, and a demonstration farm on peat land at Arnish Moor, Island of Lewis. It is the national soil research station for Scotland, and is under the management of a Joint Committee nominated by the three Scottish Agricultural Colleges, the University of Aberdeen, and the Department of Agriculture for Scotland. Particular attention is paid to the study of moorland and heath soils and to problems of drainage and manuring. Facilities for research are offered and applicants are invited to communicate with the Director.
- 12. THE SCOTTISH SOCIETY FOR RESEARCH IN PLANT BREEDING (Station at Corstorphine, Midlothian) was established to promote the discovery and the creation of improved races of crop plants adapted to Scottish conditions. Applications from voluntary workers to the Director of Research will receive consideration.
  - 13. SEED TESTING AND PLANT REGISTRATION STATION (Dept. of

Agriculture for Scotland), East Craigs, Craigs Road, Corstorphine, Edinburgh. Investigations are carried out in analyses of crops and grasses and clovers, especially the authentic character of wild white clover; also immunity testing of potatoes and their distinguishing characters. Overseas students may participate in the work of the Station.

- 14. EDINBURGH AND EAST OF SCOTLAND COLLEGE OF AGRICULTURE, 13 George Square, Edinburgh. Facilities are provided for post-graduate research work in soil science, agricultural bacteriology, and agricultural botany. Workers possessing the requisite qualifications may be entered for the Ph.D. degree of Edinburgh University.
- 15. NORTH OF SCOTLAND COLLEGE OF AGRICULTURE, 41½ Union St., Aberdeen. Experiments on farm crops on the college farm at Craibstone, near Aberdeen; research work in entomology; results of experiments and research published in bulletins.
- 16. The West of Scotland Agricultural College, 6 Blythswood Square, Glasgow. Applications by experts employed by the Government or Industrial Corporations in the British Empire overseas for permission to visit the College or for copies of bulletins will receive attention.

## Soils and Crops (Northern Ireland)

Persons wishing to avail themselves of the resources of any of the following centres (a) 17-19, (c) 8, (d) 8-11, should call in the first instance for suggestions and advice on the Ministry of Agriculture for Northern Ireland, Belfast; and of centre (f) 1 and 2 on the Dept. of Scientific and Industrial Research, 16-18 Old Queen St., London, S.W.r.

- 17. CHEMICAL [AND ANIMAL NUTRITION] DIVISION (Ministry of Agriculture, N. Ireland), The Queen's University, Belfast. Research work falls into two main sections: (i.) Animal Nutrition (see (d) 8 below); (ii.) Soil and fertilization problems. There is an Agricultural Research Station for crops and stock with a farm of 500 acres at Hillsborough, Co. Down.
- 18. Plant Breeding Research Division (Ministry of Agriculture, N. Ireland), Stormont, Strandtown, nr. Belfast. The Division is concerned with the production of improved varieties of the agricultural crops of N. Ireland. Hitherto most time has been devoted to oats.
- 19. SEED-TESTING AND PLANT DISEASES DIVISION (Ministry of Agriculture, N. Ireland), The Queen's University, Belfast. The chief investigations of this Division relate to potato and flax diseases, fruit diseases and pests, gooseberries (American gooseberry mildew), forestry diseases, and celery leaf spot.

## (b) Horticulture

I. Long Ashton Fruit Research Station (Univ. of Bristol), Long Ashton, nr. Bristol. The work of the Station is the investigation of

problems relating to (i.) fruit culture; (ii.) diseases of horticultural crops, especially fruit crops; (iii.) fruit preservation and production, incl. cider making and the storage of fruits; (iv.) willow cultivation and the utilization of osiers. The Station is also an advisory centre on these subjects. Adjoining the Station is a farm of c. 257 acres, about one-half of which is suitable for experimental work. At the associated Fruit and Vegetable Canning Research Station, Chipping Campden, Glos., the main research is the investigation of problems relating to the commercial canning of fruits and vegetables. Intending workers should apply to the Director, stating subject of work proposed and probable length of study.

2. East Malling Research Station, Kent. (The Kent Incorporated Society for Promoting Experiments in Horticulture.) Research work is being carried out in pomology, hop culture, plant pathology, physiology, bio-chemistry, and entomology. From time to time facilities are offered to graduate students for gaining experience in research in these problems, both in the field and laboratories. Applications, with full details of qualifications and subjects of study proposed, to be addressed to the Director.

In accordance with the recommendation of the Imperial Agricultural Research Conference held in London in 1927, the Imperial Bureau of Fruit Production has been established for the collection and dissemination of information on this subject throughout the Empire. A quarterly journal, Horticultural Abstracts, is issued dealing with deciduous, tropical and sub-tropical fruit, and other perennial crops.

- 3. HORTICULTURAL RESEARCH STATION (Camb. Univ.), University Farm, Huntingdon Road, Cambridge. The Station is controlled by the Director of the Plant Breeding Institute and a committee of fruit and vegetable growers. The chief investigations at present are the breeding of improved varieties of apples, plums, pears, and strawberries, and of onions, various brassicæ and parsnips; also a comprehensive series of investigations on the physics of spraying fluids.
- 4. EXPERIMENTAL AND RESEARCH STATION, Turner's Hill, Cheshunt, Herts. In the centre of the Lea Valley Glasshouse district. The aim of the Station is to investigate the many problems connected with the commercial cultivation of glasshouse crops. Advisory work is an important feature. Research workers are admitted to the laboratories for short periods when space is available. Reports are widely circulated. All inquiries should be addressed to the Director.
- 5. Horticultural College for Women, Swanley, Kent, conducts investigations into insect pests and fungus diseases of cultivated garden plants. Students on leave from other countries are welcome. Inquiries to be addressed to the Principal.

# (c) Animal Pathology (England and Wales)

1. THE BROWN ANIMAL SANATORY INSTITUTION, 149 Wandsworth Road, London, S.W.8. (See p. 113.)

- 2. Research Institute in Animal Pathology (Royal Veterinary College, London), Great College St., Camden Town, N.W.i. The aim of the Institute is to extend knowledge regarding the diseases of domesticated animals. The principal work undertaken hitherto has been epizootic abortion in cows, abortion in mares, joint-ill in foals, Johne's disease, mastitis in cows, parasitic gastritis in ruminants, and quarter evil. Visitors from overseas desiring to do research work in animal pathology are welcome. The present research in the Institute is chiefly bacteriological. There is accommodation for two workers from overseas, but special research grants would be required for the purchase of experimental animals or expensive apparatus. Applications must be made to the Director of the Institute before Feb. 15 of the year in which work is to begin.
- 3. Institute of Animal Pathology (Camb. Univ.), Cambridge. It has a field station in Milton Road, Cambridge. The Institute is working almost entirely on the diseases of farm animals. Special attention has been given to a variety of sheep diseases. Arrangements are made for courses of advanced study and research for Colonial veterinary officers and others who may desire them. Provision is also made for visitors to carry out specific investigations.
- 4. Veterinary Laboratory (Ministry of Agriculture and Fisheries), New Haw, Weybridge, Surrey. The Foot and Mouth Disease Station for experiments with large animals is at Pirbright, some 10 miles from New Haw. The aim of this Laboratory is to apply laboratory methods to the diagnosis of disease and to conduct research into problems of ætiology and prophylaxis. The New Haw laboratory has excellent facilities for experimental work on the larger farm animals. A limited number of post-graduate workers can be received.

In accordance with the recommendation of the Imperial Agricultural Research Conference held in London in 1927 the Imperial Bureau of Animal Health for the collection and dissemination of information on this subject throughout the Empire has been established at the Laboratory. The Bureau publishes the Veterinary Bulletin monthly.

5. The Molteno Institute for Research in Parasitology, Cambridge. Telegrams—Molteno, Cambridge, 177. This Institute was founded by Mr. and Mrs. Percy A. Molteno for the advancement of knowledge of parasitology in all its branches. Opened in 1921. There are 13 research rooms, a museum, special library, photographic room, accommodation for smaller animals and an aquarium room, etc., and, if required, facilities for work on parasitic affections of larger animals may be obtained at the Univ. Field Laboratories. It is also well provided with apparatus and appliances for research upon the biology and morphology of parasites. The extensive collections of parasites (Vermes, Insecta, Acarina, Protozoa, Fungi) are accessible for study, the most notable being the Nuttall collection of Ticks, which, besides being rich in types is one of the largest existing.

The scope of the work carried on is broadly biological, extending beyond the limitations set by professional schools, either medical or veterinary, in zoological and botanical laboratories, or in conjunction with agriculture and fisheries. Purely scientific as well as practical problems are dealt with.

Research workers, including those coming from the outside, may be admitted on application to the Director of the Institute. The ordinary fee for research students is five gs. a term and two and a half gs. during six weeks of the Long Vacation (total £18:7:6 p.a.).

6. Institute of Agricultural Parasitology (London School of Hygiene and Tropical Medicine), Winches Farm, Hatfield Road, St. Albans, Herts. The Institute specializes in the morphology, life histories, and bionomics of the internal parasites of domesticated animals, farm stock, poultry, and fur animals, and of the allied eel worms which infest plants of economic importance. Facilities for advanced study and research are available for overseas workers in the various depts. of the London School of Hyg. and Trop. Med. Applications for detailed information should be made to the Secretary, London School of Hyg. and Trop. Med., Keppel Street, London, W.C.I.

In accordance with the recommendation of the Imperial Agricultural Research Conference held in London in 1927 the Imperial Bureau of Agricultural Parasitology for the collection and dissemination of information on this subject throughout the Empire has been established

at the Institute.

# Animal Pathology (Scotland)

7. Animal Diseases Research Association, Moredun, Gilmerton, Edinburgh, and a suite of rooms at the Royal (Dick) Veterinary College. So far diseases of sheep have been given first consideration. Grass disease in horses and milk fever in cows are also being investigated. Visiting workers are expected to defray the cost involved in any special work.

## Animal Pathology (Northern Ireland)

8. Animal Diseases Division (Ministry of Agriculture, N. Ireland), Stormont, Strandtown, nr. Belfast. Research is carried on into sterility in cattle, anti-tuberculosis vaccination, pneumonia in pigs, and diseases of poultry and sheep.

## (d) Animal Husbandry (England and Wales)

- I. Animal Nutrition Research Institute (Camb. Univ.), School of Agriculture, Downing Street, Cambridge. There is a branch laboratory at the Field Laboratories, Milton Road. The work of the Institute falls under two main heads: (i.) nutrition proper; (ii.) the physiology of reproduction and growth. Members of the staffs of teaching institutions or of Govt. Depts. of Agriculture are admitted for short courses. The full course covers two or three yrs. Applications should be directed to the Secretary, School of Agriculture, Cambridge, as long as possible before proposed arrival.
- 2. NATIONAL INSTITUTE OF POULTRY HUSBANDRY (Harper Adams Agricultural College, Newport, Salop. (See (a) 8 above)). The Institute carries out large scale experimental work on the breeding, feeding,

management, and housing of poultry and other small live stock. Inquiries to be addressed to the Director.

- 3. NATIONAL INSTITUTE FOR RESEARCH IN DAIRYING (Univ. of Reading), Shinfield, near Reading, was established in 1912, and is devoted to research in the production, handling, and distribution of milk and the manufacture of dairy products. The work is organized in four main departments: (a) dairy husbandry; (b) dairy bacteriology; (c) dairy chemistry; (d) physiology. In addition to laboratories, the Institute possesses an experimental farm and a dairy in close proximity to the laboratories. A limited number of post-graduate workers can be received for a two or three years' course. Voluntary workers may be admitted for shorter periods. Applications for admission should be addressed to the Director of the Institute.
- 4. SMALL ANIMAL BREEDING RESEARCH INSTITUTE (Camb. Univ.), School of Agriculture, Downing Street, Cambridge. Field work at Univ. Experimental Farm, Huntingdon Rd., Cambridge. The work includes genetical problems relating to rabbits and poultry. A limited no. of applns. could be considered from visiting research workers who wished to spend a short period working in the Inst. Applns. should be addressed to the Secretary, School of Agric.

## Animal Husbandry (Scotland)

5. ROWETT RESEARCH INSTITUTE, Bucksburn, Aberdeen. The Institute is devoted to research in animal nutrition. There is an experimental stock farm attached. Work has been carried out on, among other things: (i.) the mineral content of pastures; (ii.) mineral metabolism; (iii.) nutritive properties of milk; (iv.) human dietetics; (v.) the mineral content of feeding stuffs. Post-graduate research workers are admitted.

In accordance with the recommendation of the Imperial Agricultural Research Conference held in London in 1927, the Imperial Bureau of Animal Nutrition has been established in connexion with the Institute for the collection and dissemination of information throughout the Empire bearing on that subject. The Bureau publishes Nutrition Abstracts and Reviews, issued under the direction of the Imperial Agricultural Bureaux Council, the Medical Research Council, and the Reid Library (Rowett Research Institute).

6. Hannah Dairy Research Institute, Auchincruive, nr. Ayr. This Institute was established in 1928 for the study of problems relating to the production and distribution of milk, and the manufacture of dairy products. At present work is being concentrated along biological lines, particularly as regards the physiology of milk secretion, the nutrition of the dairy cow, and the relation of bovine infection to human disease. Work is also being undertaken on problems connected with evaporative and drying processes in connection with milk products.

The Institute possesses laboratory accommodation for workers in physiology, bio-chemistry, pathology, and bacteriology, while opportunity for investigations in animal husbandry is available on the Institute's

dairy farm. Applications for permission to work in the laboratories should be addressed to the Director.

7. Animal Breeding Research Department (Edinburgh Univ.), King's Buildings, West Mains Road, Edinburgh. A special building for this Dept. has now been erected. The Dept. aims at securing and disseminating knowledge relating to the physiology of reproduction and of inheritance, with special ref. to animals of economic importance. A farm near Edinburgh has been purchased by the Univ. and is being used by the Dept. as an Experimental Farm. Accommodation is provided for graduates proceeding to a higher degree at Edinburgh Univ. and for officers of the Colonial Agricultural and Veterinary services. Senior research workers may work at their own problems. Applications for admission should be made to the Secretary, Animal Breeding Research Dept., Edinburgh Univ.

In accordance with the recommendation of the Imperial Agricultural Research Conference held in London in 1927, the IMPERIAL BUREAU OF ANIMAL GENETICS was established at the Animal Breeding Research Dept. for the collection and dissemination of information throughout the Empire bearing on this subject.

## Animal Husbandry (Northern Ireland)

- 8. [Chemical and] Animal Nutrition Division (Ministry of Agriculture, N. Ireland), The Queen's Univ., Belfast. (See (a) 17 above.) The Division is working on the production of "baby beef," milk production, the rearing of calves for "baby beef" production, the feeding of pigs, and, in collaboration with the Rowett Research Institute, on the effect of feeding on birth-rate, mortality and growth of lambs. Experimental work is also going on in regard to poultry in collaboration with the Rowett Research Institute and the Poultry Depts. of the Scottish Agricultural Colleges. An experimental plant for poultry nutrition has been established at Hillsborough, Co. Down, in connexion with the work of the Division.
- 9. [Crop and] Animal Husbandry Research Division (Ministry of Agriculture, N. Ireland), Agricultural Research Institute of N. Ireland, Hillsborough, Co. Down.
- 10. AGRICULTURAL RESEARCH INSTITUTE, Hillsborough, Co. Down. The Institute consists of (a) an experimental farm of 500 acres mainly devoted to work in animal nutrition; (b) a poultry plant with a capacity for 3000 birds devoted to research work in nutrition. The Institute is under the management of a Board of Trustees representative of the Ministry of Agriculture, the Queen's University Faculty of Agriculture, the Ulster Farmers' Union, and the Ulster Agricultural Organization Society.
- II. DAIRY BACTERIOLOGY DIVISION (Ministry of Agriculture, N. Ireland), The Queen's Univ., Belfast. This Division is in its initial stages. The main work falls under two heads: (i.) Graded milk; (ii.) Creameries. The Division will devise methods for the improvement and control by creameries of butter, and a uniform standard quality.

It also affords advisory services in connexion with bacteriological problems.

(e) Agricultural Economics

AGRICULTURAL ECONOMICS RESEARCH INSTITUTE (Oxford Univ.), Parks Road, Oxford. The work of the Institute embraces research into the problems of Farm Management and Agricultural Organization in all their aspects. The Institute is open to post-graduate students with a standing entitling them to read for the B.Litt., B.Sc., or D.Phil. of Oxford Univ. and who intend to study for one of these research degrees. Inquiries should be addressed to the Secretary.

## (f) Food Preservation and Transport

- I. Low Temperature Station for Research in Bio-Chemistry and Bio-Physics (Dept. of Scientific and Industrial Research in conjunction with Camb. Univ.), Cambridge. (See V. 8 below.) The work in progress falls under the following heads: (i.) Plant problems; (ii.) Animal problems; (iii.) Fungal and bacteriological problems; (iv.) Canning problems; (v.) Biological engineering problems; (vi.) Problems of salting and smoking.
- 2. DITTON LABORATORY (Dept. of Scientific and Industrial Research), East Malling, Maidstone, Kent. Research is carried out on the storage and transport of fruit on the laboratory scale and also in a large storage-chamber with a capacity of 120 tons.
- 3. Fruit and Vegetable Preservation Research Station, Chipping Campden, Glos. (See (b) 1 above.)

## (g) Agricultural Engineering

Institute of Agricultural Engineering (Univ. of Oxford), 37A St. Giles, Oxford. The aim of the Institute is to undertake research in all depts. of agricultural engineering. These include: (i.) The intensive use of machinery on the farm (Power Farming), with sp. attention to sources of power (tractors, etc.), and to modern methods of farming (combine harvester-thresher, etc.); (ii.) The use of electricity on the farm; (iii.) Field drainage. The Institute also conducts tests under the Ministry of Agriculture's Testing Scheme and answers inquiries relating to agricultural engineering and machinery. Inquiries to be addressed to the Director.

## II. Forestry.

IMPERIAL FORESTRY INSTITUTE, Oxford, see p. 235.

## III. FISHERIES.

Persons wishing to avail themselves of the resources of any of the following centres 1, 2, 4, 5 and 7 should call in the first instance for suggestions and advice on the Ministry of Agriculture and Fisheries, 43 Parliament St., London, S.W.I; for centres 9 and 10 on the Fishery Board for Scotland, 101 George St., Edinburgh; and for

centre II on the Dept. of Scientific and Industrial Research, 16 Old Queen St., London, S.W.r.

- I. MARINE BIOLOGICAL ASSOCIATION. A number of research tables at the Plymouth Laboratory are provided free of cost on the nomination of Governors (among others the Univs. of Oxford and Cambridge) and Founders of the Marine Biological Assocn. of the United Kingdom. The Ray Lankester Fund provides for the payment of \$\frac{1}{2}\$ too to an Investigator to be appointed from time to time by the trustees on condition of his spending at least 5 months in carrying on researches at the Laboratory. There are two posts of Student Probationer open to Honours graduates, each tenable for 2 yrs. at \$\frac{1}{2}\$ coo p.a., but only one in 1932. For full particulars application should be made to the Director of the Laboratory, Citadel Hill, Plymouth, Devon.
- 2. Dove Marine Laboratory, Cullercoats, Northumberland. The Laboratory is under the control of the University of Durham, and is well fitted for research in marine zoology and botany. There is a sea-going motor-boat. Application for tables should be made to the Hon. Director, Professor A. Meek, Zoological Department, Armstrong College, Newcastle-on-Tyne. Special facilities for post-graduate research.
- 3. Marine Biological Station, Port Erin, Isle of Man (Dept. of Oceanography, Liverpool Univ.). This sea-board station for biological research includes 2 large class-rooms or laboratories; a well-equipped bio-chemical laboratory, 14 small working rooms, library, dark-room and stores, workshops; an aquarium and small museum; and a fish-hatchery and open-air ponds. Accommodation is provided for both undergraduate students and investigators at all times in the year. Application for workplaces should be made to Mr. W. C. Smith at the Station. A limited no. of research (post-graduate) students can also be accommodated at the Dept. of Oceanography at the Univ. Application to be made to the Registrar.

Accommodation for students and researchers in Marine Biol., particularly on the Bio-Chemical side, is provided at the Station. Applns. as above.

- 4. FISHERIES LABORATORY, Lowestoft. The main Laboratory of the Fisheries Department of the Ministry of Agriculture and Fisheries, well equipped for deep sea research. A research trawler and a motorboat are kept in commission throughout the year. There is no special provision for outside workers, but duly accredited persons interested in fishery research will be given facilities on application to the Director.
- 5. FISHERIES EXPERIMENT STATION, Castle Bank, Conway. Equipped by the Fisheries Department (Ministry of Agric. and Fisheries) for shellfish research, especially in connexion with sewage pollution and artificial breeding. Accommodation for outside workers is limited. Application should be made to the Director.
- 6. FISHERIES RESEARCH DEPT., UNIVERSITY COLLEGE, Hull. A Fisheries Research section under the directorship of Prof. A. C. Hardy has been added to the Dept. of Zoology and Oceanography; two

research biologists have been appointed, and it is hoped to make a further appointment in the coming year. Maintenance costs are largely met by a grant from H.M. Treasury made on the recommendation of the Development Commission. A grant has also been made by the Fishmongers Company. A scheme of research, which concerns the distribution of plankton in relation to that of fish, particularly the herring, is being carried out in co-ordination with the researches of the International Council for the Exploration of the Sea. Facilities are offered to post-graduate research workers. Applications to the Registrar.

- 7. FISHERIES RESEARCH STATION, Alresford, Hants. A small laboratory on the river Itchen, maintained by the Fisheries Department (Ministry of Agric. and Fisheries) for work on freshwater ecology in relation to pollution. Accommodation for outside workers is very limited.
- 8. THE FRESH WATER BIOLOGICAL ASSN. OF THE BRITISH EMPIRE RESEARCH STATION, Wray Castle, Lake Windermere. Instituted 1931. Visiting naturalists are invited to make use of its facilities.

## (Scotland)

- 9. FISHERY BOARD FOR SCOTLAND. The Marine Laboratory, Wood St., Torry, Aberdeen, and the Marine Aquarium, Bay of Nigg, Aberdeen, are Govt. fishery and marine biology establishments. Two vessels fitted with modern apparatus are in commission for the greater part of each year: (a) the steamship Explorer engaged in deep-sea work (incl. trawling) in Scottish and North Atlantic waters, and (b) the motor-boat Enid employed in surveying coastal areas. One or two outside research workers may be accommodated, but no sp. provision for such exists. The Board's Scientific Supt. is Alexander Bowman, D.Sc., F.R.S.E., who is also Lectr. on The Scientific Study of the Fisheries at Aberdeen Univ.
- 10. Scottish Marine Biological Association, Millport, Scotland, admits students and research workers: table space rental 10s. 6d. per week, including loan of microscope and use of ordinary reagents, library and reference collections, boats and collecting appliances when available. Trade dept. for sale of specimens. For full particulars apply to the Superintendent, Marine Station, Keppel Pier, Millport, Buteshire.

## Preservation of Fish

II. TORRY RESEARCH STATION, Aberdeen. (See V. 8 below.) This Station deals with problems connected with the handling of fish as a commercial product.

## IV. TIDES AND METEOROLOGY.

LIVERPOOL OBSERVATORY AND TIDAL INSTITUTE. The work carried on is as follows: (1) The continuous prosecution of scientific research into all aspects of knowledge of the tides and of kindred geophysical

subjects; (2) the analysis of tidal observations and the preparation of tide-tables; (3) the taking of meteorological and seismological observations, together with the supplying of information on these subjects; (4) the maintenance and firing of the Time-gun; (5) the testing of chronometers and navigational instruments. Students in research or in the routine of tidal work may be admitted on appln. to the Director of the Institute, The University, Liverpool.

#### V. INDUSTRIAL.

Persons wishing to avail themselves of the resources of any of the centres 1-8 are advised to call in the first instance for suggestions and advice on the Dept. of Scientific and Industrial Research, 16 Old Queen St., London, S.W.I. Research workers from overseas are not accommodated in the research stations of the Dept. unless sent by Dominion and Colonial Governments by arrangement with the Department. Visitors from the Dominions or Colonies making inquiries on subjects falling within the scope of the various stations will, however, be supplied with such information as is available for communication.

For centres 9 and onwards applications should be made direct.

- 1. THE NATIONAL PHYSICAL LABORATORY, Teddington, Middlesex, was founded in the year 1901 as a public institution for standardizing and verifying instruments, testing materials, and for the determination of physical constants. The Laboratory comprises the following main sections: Physics; Electricity; Metrology; Engineering; Aerodynamics; Metallurgy and Metallurgical Chemistry; William Froude National Tank.
- 2. The Fuel Research Station, Blackwall Lane, Greenwich, London, S.E.10, carries out investigations on the nature, preparation, and utilization of fuel of all kinds. The equipment of the Station includes large-scale plant for the carbonization, gasification, hydrogenation, cleaning, and briquetting of coal, boiler installations, and internal combustion engines for testing liquid fuel, as well as laboratories for small-scale investigations.
- 3. The Geological Survey of Great Britain and Museum of Practical Geology, Jermyn St., London, S.W.I, assists students and others doing research as follows: (a) Palæontology, Petrology, and Mineralogy; the collections of British fossils, rocks, and minerals are always available under the guidance of the officer in charge. If sufficient reason is shown specimens may be lent out. Microscopes and all necessary apparatus are provided in the Survey's laboratories. (b) Mapping and field work. In the library large-scale maps of all parts of Britain which have been geologically surveyed are open for reference, and often the officers who made the maps are at hand to explain points of difficulty. (c) The library is especially rich in foreign surveys and in British geological literature. The public are admitted freely.
- 4. The Forest Products Research Laboratory, Princes Risborough, Bucks, is concerned with the general study of forest products,

especially timber, with a view to their more efficient conservation and economical use. Arrangements have recently been completed in conjunction with the Empire Marketing Board for the work of the Laboratory to be extended to cover investigations of the technical qualities of Empire timbers.

- 5. The Building Research Station, Bucknall's Lane, Garston, nr. Watford, Herts, is concerned with general research into building materials and methods of construction.
- 6. The Radio Research Station, Slough, Bucks, has for its object the scientific study of general problems involved in the development of radio communication.
- 7. The Chemical Research Laboratory, Teddington, Middlesex, undertakes research on certain purely chemical problems (e.g. High Pressure Chemistry, synthetic resins, "low-temperature" tar, corrosion of metals) and also chemical investigations on behalf of other research organizations, where these can more conveniently be carried out in a central chemical Laboratory.
- 8. The Food Investigation Stations of the Department are concerned with research on the storage and transport of foodstuffs. The Low Temperature Research Station, Downing Street, Cambridge, is concerned mainly, but not exclusively, with fruit and meat; the DITTON LABORATORY, East Malling, Maidstone, Kent, with fruit; the Torry Research Station, Aberdeen, with fish.
- 9. British Cast Iron Research Association, 24 St. Paul's Square, Birmingham, of manufacturers of pig iron, grey iron, and malleable castings of all kinds, for research in the constitution, methods of production, and after-treatment of these and auxiliary materials, such as refractories, sands, fuels, slags, fluxes, etc. Their Central Laboratory is in Birmingham and an auxiliary laboratory in Falkirk, but other research work is at university and other research laboratories at Sheffield, Birmingham, Manchester, etc., and at the National Physical Laboratory. Investigators interested in any phase of research work on cast iron may use the Association's Information Bureau, and the Director is prepared to co-operate in planning investigations. Quarterly bulletin of abstracts and information on current metallurgical literature.
- 10. The British Cutlery Research Association, P.O. Box 49, Sheffield, conducts research in problems affecting the whole trade. The cutlery industry, having in the past been based entirely on the skill of the individual workman, has probably more to learn than most trades by the application of modern productive methods. From hand labour to machine production is a difficult and intricate step, and it is this change-over which mostly occupies the activities of the Association. A number of machines have been introduced amongst members, and are in regular commercial work, and others are in course of production. All results obtained, subject to the ruling of the Scientific and Industrial Research Department, are confidential to members to whom only reports are distributed.

- II. The British Non-ferrous Metals Research Association, Regnart Buildings, Euston St., London, N.W.I. (Telegrams—Metreserch, Eusroad, London), aims to cover the whole field of the non-ferrous metals and their alloys. Membership of the Association is open to individuals and companies in any part of His Majesty's Dominions who have industrial interests in non-ferrous metals whether as smelters, manufacturers, or users. The researches of the Association have hitherto been carried out in approved academic and other institutions, or in works, but a central Headquarters has now been established in London, where Research, Development, and Intelligence Depts. will operate together. The results are in the first instance reserved to members, although much is being published. So far as possible, the Association will be pleased to inform scientific workers from the Overseas Empire of the work it has undertaken or already published.
- 12. The British Refractories Research Association, Drayton House, 30 Gordon St., London, W.C.I., conducts investigations designed to improve the manufacture, quality, and methods of using the heatresisting materials of which high-temperature installations, including coke-ovens, gas-retorts, and blast and other metallurgical furnaces are constructed. Whilst having its own special field of work, many of its investigations prove of fundamental interest to the clay industries generally, fuel technologists, and metallurgists. Research headquarters are at the North Staffs Technical College, Stoke-on-Trent, and one branch of its work is carried out at Sheffield Univ. Bulletins containing the results of investigations are published periodically, and issued confidentially to members of the Research Assn. Occasional special Bulletins are released for general circulation, and Reports are published from time to time at the discretion of the Council in the appropriate technical journals.
- 13. The British Electrical and Allied Industries Research Association, 36/38 Kingsway, London, W.C.2, has no laboratory of its own. It arranges programmes of research and carries them out with the help of makers' laboratories and Universities and Technical Colleges (sometimes under contract with members of staffs or students), in power stations, etc. It aims at securing co-ordination of research work and realization of maximum benefits from it. Reports are published generally in the *Journal* of the Institution of Electrical Engineers.
- 14. RESEARCH ASSOCIATION OF BRITISH MOTOR AND ALLIED MANUFACTURERS. Incorporated 1919. This Association has now been absorbed by the Research and Standardization Committee of the Institution of Automobile Engineers. See No. 33, p. 809.

15. The British Motor Cycle and Cycle-car Research Association, established 1921. It uses the offices and laboratories of the British Motor Car Research Association at Bolton Road, Chiswick, London, W.4. It conducts research into various problems of importance to manufacturers and users of motor cycles and cycle-cars.

From time to time researches have been prosecuted in laboratories of consultant engineers, and certain specific items have also been carried through in members' factories. Much attention has been devoted to such problems as silencing, carburation, construction of frames, use of brazes and solders, lubrication, and choice and quality of materials employed in cylinder, piston, and gear-box construction. Reports of the Association are, in general, confidential to members, but various articles have been published from time to time in trade and technical journals of the industry.

Arrangements are being made for the work of this Association to be taken over by the Research and Standardization Committee of the Institution of Automobile Engineers. See No. 33, p. 809.

- 16. THE BRITISH SCIENTIFIC INSTRUMENT RESEARCH ASSOCIATION, 26 Russell Square, London, W.C.I (Telegrams—Promores, Westcent, London), conducts research into problems pertinent to the manufacture and use of scientific instruments, including optical, surveying, nautical, and electrical instruments, and electro-medical and X-ray apparatus, and also into optical glass. It has headquarters' laboratories at 26 Russell Square, and researches are prosecuted in universities, technical colleges, works laboratories, and works. Students are not admitted to work in the Association's laboratories. The research reports are, in general, confidential to members of the Association and to certain Government services, but some are published from time to time, either in scientific journals or separately for general circulation. The annual reports of the Association are distributed to certain public libraries, etc., at home and abroad, but otherwise are available only to members. Among the institutions receiving them are: the Research Council Library, Parliament Buildings, Ottawa, Canada; Council of Scientific and Industrial Research, 314 Albert St., East Melbourne, Australia; Advisory Board of Industry and Science of the Union of S. Africa, New Law Courts, Johannesburg.
- 17. THE RESEARCH ASSOCIATION OF BRITISH PAINT, COLOUR, AND VARNISH MANUFACTURERS, Waldegrave Road, Teddington, Middlesex, founded 1926, conducts researches into problems relating to the treatment of the raw materials and the fabrication of the finished products of the industries suggested by the title as well as the allied industries of printing ink, linoleum, and artificial cloth manufacture. The researches are wholly prosecuted in the laboratories at the Paint Research Station.

Not the least important part of the studies is concerned with the physical properties of materials. The Association also possesses a small scale factory plant and extensive equipment for carrying out accelerated weathering tests on paint materials. The research reports are, in general, confidential to members. Annual reports and bulletins are issued from time to time. The Association also issues bi-monthly a Review of

Current Literature relating to the Paint, Colour, and Varnish Industries, which embraces about 250 abstracts per issue. This Review is issued primarily for members, but it has a private sale to interested persons or companies both in England and abroad, not eligible for membership of the Association.

- 18. The British Cotton Industry Research Association, Shirley Institute, Didsbury, Manchester, does not admit students to work in its laboratories. Its research results are communicated to its members, and the papers released for open publication are issued in the Journal of the Textile Institute, 16 St. Mary's Parsonage, Manchester.
- 19. The Wool Industries Research Association, "Torridon," Headingley, Leeds (Telegrams—Woolira, Leeds), awards research fellowships and advanced scholarships tenable at Universities and Colleges, and by arrangement with the Univ. of Leeds, post-graduates proceeding to higher degrees can carry out their research work at the Association's laboratories. The results of research carried out at the headquarters of the Association are published in the Journal of the Textile Institute, the Journal of the Society of Dyers and Colourists, and in other scientific journals. Other reports are retained in the first instance for private circulation to members of the Association, but may subsequently be released for general circulation.
- 20. The Linen Industry Research Association, Lambeg, Co. Antrim, N. Ireland. Investigators, who must be British subjects, are admitted to work in the Association's Research Institute in furtherance of its objects and in preparation for University degrees. The work includes the investigation of problems arising in all branches of the industry, from the propagation of the seed to the merchanting of the finished goods. It affords scope for much original research in economic botany, agriculture, bio-chemistry, and physics, particularly the properties of colloids. The results of researches are frequently published in scientific journals. In order to develop flax-growing within the Empire, special arrangements exist to provide post-graduate instruction in the economic botany and technical utilization of the flax plant for suitable nominees from outlying parts of the Empire.
- 21. The British Silk Research Association, 19 Russell Square, London, W.C.I. Research results of general interest are usually published by the Journal of the Textile Institute. Provision is not normally made for circulation of unpublished reports to non-members. Research students, incl. students preparing for higher Univ. degrees, admitted to laboratory.
- 22. THE BRITISH LAUNDERERS' RESEARCH ASSOCIATION, 17 Lancaster Gate, London, W.2, is investigating the laundering of all types of washable fabrics—including cotton, linen, wool, silk, and rayon materials. The work includes in its scope the cleansing, drying, and re-finishing of these fabrics, in the diverse forms in which they are presented in articles of wear, domestic use, etc.; the materials used for these purposes. Engineering department deals with the plant required. The laboratories (at Hill View Gardens, Hendon, London, N.W.4) include an

experimental laundry in which semi-full scale experimental work is carried out. Members may send students for courses of instruction in the Association's methods at the laboratories. In general, the research reports are confidential to members, but some have appeared in the appropriate scientific journals. Every attempt is made to encourage the application of scientific knowledge and methods in laundering, and numerous lectures are given throughout the British Isles, by the Association's staff. The literature relating to laundering is very limited, and the Association's book, The Control of Laundry Operations (1925), has now been supplemented by a second pubn., The Chemistry of Laundry Materials (1931).

- 23. THE BRITISH LEATHER MANUFACTURERS' RESEARCH ASSOCIATION, Offices, 8 St. Thomas Street, London, S.E.I., and the Laboratory of the Director in the Lister Institute, Chelsea Bridge Road, London, S.W.I., conducts research in regard to the manufacture (tanning, currying, and dressing) of leather and the raw materials of the Industry. The research reports are generally confidential to members of the Association and to certain Government services, but papers are occasionally printed in scientific or trade journals or separately for more general circulation.
- 24. THE BRITISH BOOT, SHOE, AND ALLIED TRADES RESEARCH Association, 19 Bedford Square, London, W.C.I, conducts research into problems that arise in the manufacture in bulk quantities of footwear, in its distribution to the general public and during its wear. The researches cover a wide field, embracing methods of measuring feet, statistical studies of the distribution of different types of feet, the design of lasts to suit different types of feet, the properties of shoe materials, the care of them and their economical use, and the chemical and other effects that may arise in the wear of shoes. A certain amount of work is carried out in collaboration with factories and technical colls. Students have from time to time been admitted to the Association's laboratories. The research reports are in general confidential to members of the Association and to certain Government Depts., but some are published, generally in the Journal of the International Society of Leather Trades Chemists. Membership of the Assocn. consists principally of boot and shoe manufacturers, but it also includes a number of manufacturers and suppliers of various shoe materials, such as textile fabrics, textile threads, shoe polishes, cleaners, dressings, and a few engineering firms who manufacture shoe machinery.
- 25. The Research Association of British Rubber Manufacturers, 105/107 Lansdowne Road, Croydon, Surrey, has laboratories, together with a technical library and information bureau to deal with inquiries from its members, Government Departments, and scientific workers in the Dominions. Carries out research, chiefly of a confidential nature, through its own staff. A Summary of Current Literature, containing abstracts of technical and scientific publications relating to all branches of the rubber industry, is issued to members and subscribers each month.
  - 26. The Research Association of British Flour Millers, 40

Trinity Square, London, E.C.3, conducts research into problems connected with the manufacture and use of wheat flour and other products of wheat. The researches are carried out mainly at the laboratories of the Association, Old London Road, St. Albans, under the supervision of the Director of Research. Practical industrial applications of the laboratory scale work are studied in the mills of constituent firms. Reports of scientific work are, in general, confidential to members of the Association, but some are released from time to time for publication in the scientific or technical press. A library of scientific and technical books and periodicals bearing directly on flour milling and baking problems is being developed, and is accessible to students and others interested. Students as a rule are not admitted to work in the Association's laboratories.

- 27. THE BRITISH ASSOCIATION OF RESEARCH FOR THE COCOA, CHOCOLATE, SUGAR CONFECTIONERY, AND JAM TRADES, Laboratories, 2 and 4 Dalmeny Avenue, Holloway, London, N.7, conducts research into problems connected with the manufacture of these products, though occasionally some portions of an investigation may be conducted in a factory. The research reports are issued to members and certain Govt. Depts. only, and, with a few exceptions, are confidential. Some reports, particularly those dealing with analytical investigations, are pubd. in scientific or trade journals. Secretary, 22 Buckingham Gate, London, S.W.I.
- 28. The British Food Manufacturers' Research Association, 2 and 4 Dalmeny Avenue, Holloway, London, N.7. This Association was originally intended to include branches of the food industries not covered by the Association for the Cocoa, Chocolate, Sugar Confectionery, and Jam Trades, but the membership consists mainly of manufacturers of sausages, cooked meats, and other meat products, preserved fish, and also bacon and ham curers.

The researches into problems connected with these products are conducted in the Association's laboratories, and occasionally parts of the investigations may be carried out in factories. The reports are confidential, and are issued to members and certain Government services only. So far no reports have been published in either scientific or trade journals. Secretary, 22 Buckingham Gate, London, S.W.I.

29. THE BRITISH COLLIERY OWNERS' RESEARCH ASSOCIATION, General Buildings, Aldwych, London, W.C.2. This is an Association whose members are the various district colliery owners' associations constituting the Mining Association of Great Britain.

Though the Association conducts directly a certain amount of research work into mining problems, generally speaking it finances approved items of research work to be conducted on its behalf. Its reports are, in general, confidential to members of the Association, but from time to time reports on specific items of work are published for general circulation.

30. THE SCOTTISH SHALE OIL SCIENTIFIC AND INDUSTRIAL RESEARCH ASSOCIATION, 53 Bothwell St., Glasgow, C.2. The research work of the Association is now being carried on in the Central Laboratories of

Scottish Oils, Ltd., in the shalefields. There are no special facilities for research students, those engaged on the work coming from the organizations of the companies engaged in the industry.

31. The Printing Industry Research Association (Registered 1930), Stationers' Hall, Ludgate Hill, London, E.C.4, was formed with the main object of assisting in overcoming technical difficulties encountered by printers and bookbinders. At this early stage the Association is used primarily as an information bureau. Through the Association, members are in touch with the printing research movement in other parts of the world, receiving information relating to new processes, equipment, and materials.

The Association will undertake, for a special fee, individual investigations for the private use of members. Memoranda of general interest to the craft are issued periodically and lectures on technical matters are arranged. The Association appears to be filling a long overdue need, and is receiving influential support, not only from individual firms, but

also from employers' and employees' trade organizations.

32. The Iron and Steel Industrial Research Council of the National Federation of Iron and Steel Manufacturers, Caxton House, Tothill St., London, S.W.I, was formed on Jan. I, 1929, to work in conjunction with the Dept. of Scientific and Industrial Research. It was laid down by the Council at the outset, as a governing principle, that its work should primarily be of an industrial character, pertaining to the appln. of sci. to the improvement of productive efficiency. A Blast Furnace Committee is at present dealing with the following problems: (i.) Coke Research, in conjunction with Coke Res. Committees at Sheffield, Newcastle and Glasgow, and with the Fuel Res. Division of the D.S.I.R. (ii.) Blast Furnace Refractories, in assn. with the British Refractories Res. Assn.; (iii.) Present position of British blast furnace practice; (iv.) Character of British ores; (v.) Preparation of air blast; (vi.) The measuring instrument; (vii.) Standard methods of costing at blast furnace plant.

An Open Hearth Committee has been formed, which is working on somewhat similar lines to the Blast Furnace Committee. It is undertaking a statistical survey of operating data of open hearth furnaces in Gt. Britain and on the Continent, and is considering design of open hearth furnaces and regenerators, and also the possibility of the applica-

tion of time studies to open hearth operation.

Rolling mill practice is also receiving attention, particularly with regard to heat and energy consumption in rolling mills, and production studies.

Two Committees, under the Chairmanship of Dr. W. H. Hatfield, are directing research work on corrosion of iron and steel, and the quality of steel ingots. The Corrosion Committee recently published its first report, and the fourth report of the Heterogeneity Committee is in preparation.

A new feature in connexion with the work of the Council is the formation of Committees set up primarily to investigate local industrial problems such as: (1) Sheffield Smoke Abatement Committee; (2) S. Wales Tinplate Research Committee, which is investigating causes

of defects in tinplates; (3) S. Wales Open Hearth Committee, which is studying production efficiency in S. Wales, and also giving attention to the scientific control of open hearth furnaces; steel quality is receiving attention with a view to reducing defects in the finished material as far as possible. \*

International liaison has been established in all countries with any organizations or res. workers engaged in similar work, or work which has a bearing on the activities of the Council.

The practical support of the industry as a whole has been obtained, and it is already evident that the exchange of experience is resulting in the rapid improvement of technique throughout the industry. Work carried out during the past 5 yrs., under the direction of Prof. Bone and his collaborators at the Imperial Coll. of Sc. and Tech., is elucidating the underlying problems of blast furnace operation.

- 33. Research and Standardization Committee, The Institution of Automobile Engineers (Offices—Watergate House, York Buildings, Adelphi, London, W.C.2. Research Laboratory—5 Bolton Road, Chiswick, London, W.4. Standardization Dept.—83 Pall Mall, London, S.W.I). The object of the Committee is to promote research in connexion with the British motor trade, to eliminate needless repetition and overlapping of expenses by pooling resources. The plant and the information collected by the late Research Assn. of British Motor and Allied Manufacturers has been placed at the disposal of the Committee. An important feature of the Committee's activities is the collection and classification of information of value to the industry. The Research reports are, in general, confidential to members of the Institution. The Committee will also deal with the whole work of standardization for the Motor Industry hitherto carried out by the Society of Motor Manufacturers and Traders. Inquiries to be addressed to the Secretary.
- 34. The Safety in Mines Research Board, Cromwell House, Dean Stanley Street, London, S.W.r. This Board is composed of scientific and mining members appointed by the Secretary for Mines to conduct and co-ordinate research into the causes of mining dangers and the means for preventing such dangers.

The work is financed chiefly by endowment and grants provided from the Miners' Welfare Fund, and is carried out mainly by the Board's own staff at its large-scale experimental station at Buxton, its laboratories at Sheffield, and in the Engineering Dept. of the Imperial Coll. of Science in London. Grants for the maintenance of approved research are also made by the Board, e.g. to workers at Cambridge, Birmingham, and Leeds Universities.

Researches are in progress into the prevention of coal dust explosions, fire-damp explosions, and the spontaneous combustion of coal; the safety and safe use of electricity, explosives, and safety lamps; the prevention of accidents from falls of ground and haulage operations; the improvement of wire ropes and mine rescue apparatus, and the ventilation of deep and hot mines. The falls of ground research includes, in addition to laboratory work on the design and strength of roof supports, a comprehensive scheme of underground experimental work at collieries,

carried out in co-operation with the branches of the Instn. of Mining Engineers, and the haulage work is being developed on similar lines. The results of the researches are published in the Board's own technical papers and *Annual Reports* (which are on sale through H.M. Stationery Office) and in scientific journals.

The Board, in addition to its research activities, engages in safety propaganda among mine workers. Experimental demonstrations are given at the Buxton Research Station to miners, mine officials, and mining teachers from colliery districts, and a special series of illustrated booklets is published under the title, What Every Mining Man should Know. A start has been made with propaganda by means of films.

Arrangements are made for co-operation with the Safety Research Organizations in Belgium, France, Germany, and the U.S.A., and in the case of U.S.A. these include provision for interchange of personnel.

35. MINING RESEARCH LABORATORY, University of Birmingham (Director—Prof. J. S. Haldane, C.H., F.R.S.). Accommodation for this Laboratory is provided by Birmingham Univ., and the expenses of the staff and some of the research workers are covered by a grant from the Mining Assn. of Gt. Britain through the British Colliery Owners Research Assn. The expenses of other research workers are covered by grants from the Safety in Mines Board (Miners' Welfare Fund). The Laboratory is solely engaged in researches on problems partly physical, partly chemical, and partly physiological, connected with work in coal mining. At present the main problems under investigation are the control of underground temperature, the physiological effects of heat, the control of spontaneous underground combustion, mine lighting, and miners' nystagmus and the effects of dust inhalation.

All the results of the work are published, mainly in the Transactions of the Institution of Mining Engineers, and partly in Proceedings of the Royal Society. Much of the work is done at Mines throughout the country, but based on the Laboratory at Birmingham.

- 36. The British Museum Laboratory, 39 Russell Square, London, W.C.r., is devoted to investigations on the best methods of preserving and restoring museum exhibits of any kind and of every age. Reports published from time to time, obtainable from H.M. Stationery Office or from any bookseller. Inquiries to be addressed to the Director.
- 37. The Industrial Institute, 102 Belgrave Road, S.W.I. Founded 1925 for the promotion of scientific research into those questions of industrial economics and industrial ethics which touch the relations and interests of the groups into which the development of the industrial system has divided the nation. It is constituted on a non-party basis, and it is expressly laid down that "it will not be concerned to maintain private ownership nor to develop public ownership," its object being "to study things as they are, and by the light of knowledge so gained to form conclusions which may be put into practice and tend towards improvement of the conditions of industrial life."

An essential object of the Institute is to provide means whereby the time taken for the general acceptance of the results of scientific work,

and the application of those results to the problems of practical life, may be shortened. Accordingly, the Institute has been constructed so that it associates in its work both those concerned with the development of pure science and those concerned with practical affairs. Further, its governing body is constituted of men so representative of the various special interests that each social group may readily be reached and influenced directly, and the usual rough methods of propaganda be unnecessary. Lastly, since leaders in the main sectional groups are responsible for the work of the Institute, its findings are freed from the suspicion which attaches to those of any organization attached to any one interest, a suspicion which renders much useful work comparatively ineffective.

38. National Institute of Industrial Psychology, Aldwych House, Aldwych, London, W.C.2. Principal—C.S. Myers, C.B.E., M.D., Sc.D., F.R.S. Director—G. H. Miles, D.Sc. The Institute is a non-Government body founded in 1921, and controlled by a council of scientists, industrial employers, and Trade Union leaders. It exists to supply psychological and physiological knowledge to the human element in industry, its aim being to ensure that energy is applied in the most economical possible way, and not wasted through inefficient methods or unsuitable working conditions. Its scope includes fatigue- and movement-study, and study of the effect on efficiency of different incentive systems, working hours, rest pauses, lighting, and ventilation systems, etc.; also study of large-scale organization questions, such as planning, progressing, lay-out, internal transport, and distribution. Investigations are carried out on behalf of industrial firms.

On its vocational side the Institute applies mental and physical tests to determine the fitness of individuals for particular types of work. Tests are devised and standardized for the use of industrial firms in selecting employees, and in the laboratories of the Institute or in schools individuals are tested and advised on the choice of an occupation.

The Inst. gives lectures and practical courses suitable for the requirements of the new Academic Diploma in Psychol. of London Univ. It also offers facilities for research in those subjects, and organizes Training Courses for school teachers in the principles and methods of intelligence testing. Journal, monthly; Ann. Reports free on appln. Special Reports.

## VI. Pure Science.

I. British Museum (Natural History). Departments: Zoology, Entomology, Geology (Palæontology), Mineralogy, Botany. In addition to the specimens exhibited in the public galleries, much larger series are contained in the study-collections, which can be consulted or used for purposes of research by duly qualified workers. The function of the Museum is primarily to preserve representatives of the animals and plants (including fossils) of the entire world and of such inorganic natural productions as minerals, rocks, and meteorites. The systematic determination, description, and classification of this material constitute the principal research-work of the scientific staff (51 members) and other helpers. This forms the basis of further scientific research carried on

ther inside or outside the Museum, such as the study of variation, ethods of organic evolution, geographical distribution of animals and ants, correlation of strata, chemical and physical properties of rocks in minerals, study of crystals. All these branches of science may in in the applied to the solution of practical problems.

Publications. Scientific Catalogues and Monographs, etc.; Natural

istory Magazine (quarterly).

2. Davy Faraday Research Laboratory, The Royal Institution, Albemarle Street, London, W.I. The research work of the Royal istitution is carried on in the Davy Faraday Laboratory, which is bused in a building adjoining the Institution, presented by the late r. Ludwig Mond. There is room for about fifteen research workers. he laboratories are open to anyone who wishes to carry on researches a connexion with physics and chemistry provided the subject and the orker are approved by the Committee of Management. No fees are larged.

At the present time, the main subject of investigation is the analysis

E organic crystals by means of X-rays.

- 3. Cambridge Observatory, Madingley Road, Cambridge. Every fort is made to give research students facilities for carrying out evestigations. Applications should be made to the Director.
- 4. The Solar Physics Observatory, Madingley Road, Cambridge. he laboratory contains spectroscopic, photometric, and other apparatus or experimental research and many photographic records of spectra. acilities are offered to research students for carrying out special searches or for taking a share in the regular work of the Observatory. pplications should be made, in writing, in the first instance, to the virector.
- 5. London University Observatory, see p. 114.
- 6. The Scott Polar Research Institute, Lensfield, Lensfield oad, Cambridge. This Institute was founded in 1921 in memory of 19 late Captain Robert Falcon Scott, C.V.O., R.N. The purpose of the 19 istitute is to provide information about, and facilities for research on, 19 plant topics, and to give assistance towards the publication of the 19 sults of expeditions. The collections of the Institute include a polar 19 plant, and a collection of original records of past expeditions. The Inst. 19 open to the public from 10 to 4 on week-days. Application should be 19 ade to the Director for information as to the use of the research rooms.
- 7. Francis Galton Laboratory for National Eugenics, see 131.
- 8. John Innes Horticultural Institution, Mostyn Road, Merton, andon, S.W. 19, is engaged in research on plant genetics and cytology is the only place in the Empire where fundamental work in cytology plants is being pursued. The study of the laws of inheritance in rious horticultural plants, particularly fruit, receive special attention. lalified persons desirous of conducting work coming within the scope the Institution are given facilities freely.

## VII. MEDICAL.

The following centres, 1-5, are under the direction of the Medical Research Council.

- 1. The National Institute for Medical Research, Hampstead, London, N.W.3 (Director: Sir H. H. Dale, C.B.E., M.D., Sec. R.S.). This is the central research institute of the Medical Research Council (see App. XXIII. 15), and is primarily a place of work for members of the Council's permanent scientific staff. A few well-qualified attached workers can be received by special arrangement to follow approved lines of inquiry. There are no courses of instruction, but periods of research work at the Institute may be accepted for the purposes of higher degrees in the University of London. The Institute includes the following departments, brought together in the present building in 1920: (a) biochemistry and pharmacology; (b) experimental pathology, bacteriology, and protistology; (c) applied optics; and (d) biological standards. Parts of the work of various departments are done at the associated Farm Laboratories at Mill Hill.
- 2. Department of Clinical Research, University College Hospital Medical School, London, W.C.I (Director: Sir Thomas Lewis, C.B.E., M.D., D.Sc., F.R.S.). The dept. is engaged in clinical researches into the cardio-vascular system in health and disease. Attached workers may be received by arrangement with the Director.
- 3. THE NATIONAL COLLECTION OF TYPE CULTURES (Curator: R. St. John-Brooks, M.D.), at present housed at the Lister Institute, London, S.W.I. Type cultures of pathogenic and other micro-organisms are maintained and researches into systematic and cultural problems undertaken.
- 4. The Standards Laboratory, Oxford (in charge, A. D. Gardner, D.M.). The laboratory is maintained for the production of standard diagnostic cultures and sera for enteric, dysenteric, and some other infections, and for related research work. It is at present placed within the Dunn Institute of Pathology, University of Oxford.
- 5. THE DUNN NUTRITIONAL LABORATORY, Cambridge (in charge, L. J. Harris, D.Sc., Ph.D.). Maintained by the Council at the University Field Laboratories, Milton Road, for researches into problems of human nutrition, in association with the University departments for the various medical sciences.
- 6. The Wellcome Bureau of Scientific Research, Endsleigh Court, 33 Gordon Street, London, W.C.I (Telegrams—Scientopic, Eusroad, London), to which are affiliated the Physiological Research Laboratory, Langley Court, Beckenham, and the Field Entomological Laboratory, Claremont, Esher, was founded by Sir Henry S. Wellcome, for the purpose of research, especially in subjects connected with tropical medicine and hygiene. There are departments of bacteriology, pathology, chemotherapy, protozoology, helminthology, and entomology. Regular teaching is not undertaken, but a limited number of research workers who wish to follow some particular line of investigation may be given accommodation and facilities for carrying out their work. No

charge is made for this, and all material is supplied, unless it is of a very special nature. Attached to the Bureau is the Museum of Medical Science (see XI. 3 below).

7. THE STRANGEWAYS RESEARCH LABORATORY, Cambridge, is an independent institution mainly devoted to the study of tissue culture in vitro and to the application of that technique to biological problems. Work at present in progress includes investigations of the minute anatomy of living cells, the growth and differentiation of early embryonic tissue, the pathology of injury and repair, and the effects on living cells of X-rays and radium.

The Laboratory provides facilities for a limited number of workers who wish to investigate some specific problem involving the tissue culture technique. Such accommodation cannot be afforded for a period of less than six months. Further information may be obtained from the Director, Dr. H. B. Fell, Strangeways Research Laboratory, Hills Road, Cambridge. Letters should be marked "via Cherryhinton."

8. The Ross Institute and Hospital for Tropical Diseases, Putney Heath, London, S.W.15. Telegrams: (Inland) Rossearch Put., London; (Foreign) Rossearch, London. India Branch, Headquarters: McLeod House, 28 Dalhousie Square, Calcutta. Telegrams:

Rosopheles, Calcutta.

The Institute maintains research laboratories, a hospital, and a malaria dept. There is also an extensive library. It sends experts to the tropics to give practical advice on sanitation and anti-malaria work. It is a centre for the investigation of Fungi and Fungal diseases. Important research is also being carried out on intestinal diseases, especially on the lesser known forms of chronic colitis; on cancer, and on minor types of heat exhaustion and Sun Traumatism, little known skin troubles, etc.

Planters' Courses on the practical control of malaria are held from time to time, free of charge. Facilities for research are given to visiting

doctors and others.

Inquiries to be addressed to the Secretary.

9. THE IMPERIAL CANCER RESEARCH FUND, under the direction of the R.C.P. London and the R.C.S. England, was constituted in 1902 to promote investigations into all matters bearing on the causes, prevention, and treatment of cancer and malignant disease. It possesses Research Laboratories and a staff consisting of the Director and 5 scientific assistants. It publishes a general report annually and scientific reports from time to time. Endowment fund, £192,000. Address—8-II Queen Square, London, W.C.I.

#### CENTRES OF SCIENTIFIC INFORMATION

#### VIII. BOTANY AND AGRICULTURE.

## (England and Wales)

1. ROYAL BOTANIC GARDENS. Information is supplied on botanical matters to all parts of the Empire. (See also I. 1 above.)

- 2. IMPERIAL INSTITUTE OF ENTOMOLOGY. Head Office at—British Museum (Natural History), Cromwell Road, London, S.W.7. Director: Sir G. A. K. Marshall. An information and identification bureau to assist economic entomologists throughout the Empire. The publications include the Review of Applied Entomology, Series "A" (Agricultural) and Series "B" (Medical and Veterinary); the Bulletin of Entomological Research; and the Zoological Record, part "Insecta." A large lending library is available at the Publication Office, 41 Queen's Gate, London, S.W. I (Dr. S. A. Neave). Parasite Laboratory: Farnham House, Farnham Royal, Bucks (Dr. W. R. Thompson).
- 3. IMPERIAL MYCOLOGICAL INSTITUTE, Ferry Lane, Kew, Surrey. Director: E. J. Butler, C.I.E., D.Sc., F.R.S. Mycologists from overseas are admitted to its laboratories to the extent to which space is available. A large lending library of pamphlets is maintained. Review of Applied Mycology, published by the Bureau monthly, contains detailed abstracts in English of all work published in any part of the world.

The following Bureaux Nos. 4-9, and 13, 14 inclusive, were instituted in 1929 as the result of the Imperial Agricultural Research Conference held in London in 1927. They are maintained from a fund provided by contributions from the Governments of the Empire, and are controlled by an Executive Council appointed by those Govts. Address: 2 Queen Anne's Gate Buildings, London, S.W.r. Bureaux do not undertake research; they assist research workers in the Empire by acting as clearing-houses of information and by arranging meetings.

- 4. IMPERIAL BUREAU OF SOIL SCIENCE, Rothamsted Experimental Station, Harpenden, Herts, a central clearing-house of information on soil problems throughout the Empire. (See I. (a) 4 above.)
- 5. IMPERIAL BUREAU OF PLANT GENETICS, Plant Breeding Institute, Cambridge University. This Bureau collects and disseminates information on crops other than herbage plants throughout the Empire. (See I. (a) 6 above.)
- 6. IMPERIAL BUREAU OF PLANT GENETICS, Welsh Plant Breeding Station, Aberystwyth. This Bureau collects and disseminates information on herbage plants throughout the Empire. (See I. (a) 6 above.)
- 7. IMPERIAL BUREAU OF FRUIT PRODUCTION, East Malling Research Station, Kent. (See I. (b) 2 above.)
- 8. IMPERIAL BUREAU OF ANIMAL HEALTH, Veterinary Research Laboratory, Weybridge. (See I. (c) 4 above.)
- O. IMPERIAL BUREAU OF AGRICULTURAL PARASITOLOGY, Institute of Agricultural Parasitology, Winches Farm, Hatfield Road, St. Albans, Herts. (See I. (c) 6 above.)
- 10. Long Ashton Fruit Research Station, Nr. Bristol. (See I. (b) I above.)
- II. EXPERIMENTAL AND RESEARCH STATION, Cheshunt. (See I. (b) 4 above.)
- 12. Institute of Agricultural Engineering, Oxford. (g) above.)

## (Scotland)

- 13. IMPERIAL BUREAU OF ANIMAL NUTRITION, Rowett Research Institute, Aberdeen. (See I. (d) 5 above.)
- 14. Imperial Bureau of Animal Genetics, Animal Breeding Research Dept., Edinburgh. (See I. (d) 7 above.)

### IX. INDUSTRIAL.

# (England and Wales)

- 1. IMPERIAL INSTITUTE, S. Kensington, London, S.W.7. The principal object of the Institute is to promote the utilization of the raw materials of the Empire, and the investigations carried out in its laboratories are primarily directed to this end. The work includes the examination of all kinds of plant and animal products and minerals; special laboratories have been installed for the testing of rubber. cement, and ceramic materials. The results of the principal investigations are published in the quarterly bulletin of the Institute and in papers contributed to scientific and technical societies. Valuable information relating to the composition, properties, etc., of raw materials of all kinds has been accumulated in the course of the work, and the Institute will be glad to assist overseas research workers dealing with such materials by supplying any available information regarding particular products in which they are interested. Arrangements have been made in special cases for workers from overseas to carry out investigations in the laboratories of the Institute.
- 2. THE MUSEUM OF PRACTICAL GEOLOGY, Jermyn Street, London, S.W.I, to which is attached a valuable library of standard works and geological maps, serves as the laboratory of the Geological Survey of Great Britain (see V. 3 above). In the library large-scale maps of all parts of Gt. Britain which have been geologically surveyed are open for reference, and the officers of the Survey are ready to explain points of difficulty. The library is also specially rich in foreign surveys.
- 3. The Science Museum, South Kensington, S.W.7, which is the National Museum of Science and Industry, was established in 1856, and its collections now occupy 192,000 sq. ft. of exhibition space. Its purpose is to illustrate science and the application of science to industry, at the same time to show the gradual development of the modern efficient types from earlier and more simple ones.

The Museum is open to visitors free of charge every week-day (10-6)

and on Sunday afternoons (2.30-6).

Pure Science is represented by the Collections of instruments and apparatus used for study and research in the phenomena of various branches of physics, electricity, heat, light, acoustics, etc., as well as in astronomy, chemistry, geodesy, and the measurement of time.

The application of science to industry is illustrated by extensive collections of machinery and apparatus relating to Mech. Engineering, Railway Engineering, Road Transport, including Mech. Transport of all kinds; Aeronautics, Ship and Boat Construction, Marine Engines, Elect. Engineering, including all forms of Telegraphy, Telephony, and

Radio-communication. Many groups of Industrial Engineering are also represented as: Textile Machinery, Hand Tools and Machine Tools, Printing, Glass Technology, Agric. Implements and Machinery, as well as Mining, Metallurgy, and Ore Dressing. A special Children's gallery is also included.

The number of visitors during 1931 considerably exceeded one million. The Science Library which is attached to the Museum contains 215,000 vols. relating to all kinds of science, pure and applied, except Medical Science, and including 10,800 scientific periodicals. These may be issued on loan to scientific institutions for the use of their members on requisition.

# (Scotland)

4. ROYAL SCOTTISH MUSEUM, Edinburgh. A centre of scientific information dealing with technology. (See X. 8 below.)

## X. Pure Science.

# (England and Wales)

- I. ROYAL BOTANIC GARDENS, Kew. (See I. (a) I above.)
- 2. British Museum (Natural History). The various departments of the Museum (see VI. 1 above) contain, besides the specimens in the public galleries, much larger series in the study-collections which are available for consultation or research by qualified workers. Attached to the Museum is an important library of scientific works intended primarily for the use of the staff, but also available to students with tickets for the study of the natural history collections.
  - 3. Museum of Practical Geology. (See IX. 2 above.)
  - 4. Science Museum. (See IX. 3 above.)
- NATIONAL MUSEUM OF WALES, Cardiff, South Wales. A centre of scientific information on the geology, botany, zoology, and archæology of Wales.
- 6. British Association for the Advancement of Science, Burlington House, Piccadilly, London, W.I. Research Committees of the Association conduct researches and prepare reports. Committees of the Sections consider, inter alia, the financing of proposed researches by such Research Committees. The Association administers for this purpose a fund, providing an income of about £350 annually, given by the late Sir James Caird of Dundee in 1912; any surplus from subscriptions in excess of administrative expenses is also devoted to research. The Association welcomes the attendance of University students at its annual meetings, and has a special class of "student membership" at reduced fees for duly qualified persons.
  - 7. The Scott Polar Research Institute. (See VI. 6 above.)

## (Scotland)

8. ROYAL SCOTTISH MUSEUM, Edinburgh. A centre of scientific information dealing with ethnography and natural history. (See IX. 4 above.)

## XI. MEDICAL.

- I. THE BUREAU OF HYGIENE AND TROPICAL DISEASES, Keppel Street, Gower Street, London, W.C.I, is under the general control and direction of an honorary Managing Committee appointed by and responsible to the Secretary of State for the Colonies. The Bureau's main function is to collect, from all sources, information regarding hygiene and tropical diseases; to collate, condense, and, where necessary, translate this information, and make it available by means of its two publications, viz. the Tropical Diseases Bulletin and Bulletin of Hygiene, issued monthly. The Bureau is housed with the London School of Hygiene and Tropical Medicine, and its valuable library is incorporated with that of the School. The joint library contains 16,000 vols., and is open to accredited post-graduate research workers. The Bureau is officially recognized by the Colonial Office as an institution which receives and answers inquiries from the Colonial Empire on matters relating to hygiene and tropical medicine on which information is not locally available. Such inquiries should be addressed to the Director.
- 2. THE MUSEUM OF THE LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, Keppel St., Gower St., London, W.C.I., which is of the graphic type, is divided into three sections, *i.e.* Tropical Medicine, General Hygiene, and Sanitary Engineering.

The Tropical Medicine Museum deals generally with tropical diseases and with the subjects of bacteriology, entomology, helminthology, and

protozoology in their relation to tropical medicine.

The General Hygiene Museum has exhibits relating to foodstuffs, especially milk, and gives a graphic display of the ordinary communicable diseases, including methods for their control. There are also sections dealing with clothing, maternity, and child welfare, personal hygiene, and other branches of hygienic activity.

The Sanitary Engineering Museum is devoted to a graphic exposition of water supply, conservancy, heating and lighting, up-to-date methods of cooking, town-planning, building, sanitary appliances, and the more

primitive methods of sanitation in the tropics.

The Museum occupies three large rooms, one in the basement, one on the second floor, and one on the third floor, and is being extended as circumstances permit.

3. The Wellcome Museum of Medical Science, Endsleigh Court, 33 Gordon Street, London, W.C.1 (open Monday to Friday 9.30 a.m. to 5.30 p.m., Saturday 9.30 a.m. to 12.30 p.m.), presents a new system of visual teaching. The purpose and plan of the Museum is to give a general survey of human disease from every aspect. The causation, pathology, symptomatology, treatment and prevention of disease are demonstrated by means of pathological specimens, models, paintings, photographs, etc., in such a way that they convey a graphic picture of the more important features. Associated with each disease a short summary is set forth of the important points; there is also a file containing abstracts with regard to all the more recent work.

The microscopic side of morbid anatomy is dealt with by means of

colour photo-micrography, many of the photographs being shown in special illuminated cases. Thus an attempt has been made to provide a continuous demonstration of disease which will fix itself on the attention and memory of those who visit the Museum.

The Museum of Medical Science is open free of charge to all medical men, Health Officers, and students, also to laymen interested in medicine, provided they are introduced by a registered medical practitioner. Teachers of medicine are invited to give demonstrations to their classes in the Museum; and special attention is called to its value as a centre for post-graduate study.

4. The National Collection of Type Cultures (v. p. 813).

# B. IN THE DOMINIONS, COLONIES, AND DEPENDENCIES CENTRES OF SCIENTIFIC RESEARCH AND INFORMATION

#### I. CANADA

#### AGRICULTURE.

NATIONAL RESEARCH COUNCIL, see infra under Scientific and Industrial.

Dominion Experimental Farms. The Central Exper. Farm is at Ottawa. The general work is the breeding of tree and bush fruits. Sp. experiments have included (a) sod mulch in apple orchards; (b) fertilizers for apple orchards; (c) pollination in apple and strawberry plants in pots; (d) selfing strawberries; inbreeding; (e) propagating apple stocks vegetatively, and from seed; and in vegetative propagation (1) study of the relative ability to root of different open pollinated seedlings of the Anis apple, (2) study of the behaviour of the East Malling root stocks under Ottawa conditions.

There are also Govt. Exper. Stations for fruit problems at Saanichton, B.C. (apples, nuts, persimmon, figs, olives, and tea); Summerland, B.C. (apples, pears, plums, peaches, apricots, grapes, bush and bramble fruits); Morden, Manit. (apples, plums, sand cherry, hybrids, grapes, raspberries, currants, gooseberries, saskatoons, viburnum, shepherdia, strawberries); Fredericton, N.B. (apples and strawberries); Kentville, N.S. (specially apples, with some attention to other fruits); Vineland Exper. Station, Ont. (breeding of tree and bush fruits, cultural experiments in pruning, cultivation, manuring of apples, etc., vegetative propagation, etc., sp. attention to nuts).

Manitoba, Univ. of, Winnipeg. General pomology is studied with sp. ref. to fruits adaptable to N. America. The resistance of various stocks to severe climatic condns. is being tested.

Nova Scotia Agricultural College, Truro, N.S., has an Experimental Farm devoted to general agric. Some special work in connexion with the apple industry is also carried on.

Ontario Agricultural College, Guelph. The Experimental Farm attached to this Coll. is working at present on production methods for fruit trees, and the breeding of apples, pears, and strawberries.

Field trials of fertilizers, and experimental work on plant and animal breeding are being carried on on a considerable scale.

SASKATCHEWAN, UNIV. OF, Saskatoon. Attention is chiefly directed in the Experimental Farm to animal, cereal and forage plant breeding, and testing hardy fruits suitable for the Prairie Provinces.

#### FISHERIES.

Four main stations for the study of fish and fisheries problems are operated under the control of the Minister of Marine and Fisheries through the Marine Biological Board, consisting partly of scientific men. partly of departmental officers, and partly of men from the industry. On the Atlantic coast one station is located at St. Andrews, N.B., another at Halifax, N.S. On the Pacific coast there is a station at Nanaimo, B.C., and another at Prince Rupert, B.C. The stations at St. Andrews and Nanaimo are mainly for fundamental (biological) research, and are open to duly qualified and recommended univ. graduates as volunteer workers during the summer. The stations at Halifax and Prince Rupert are more for educational and experimental work directly bearing on the economic side of fisheries. The Halifax station staff co-operates with Dalhousie Univ. in furnishing a course for students leading to a B.Sc. in Fisheries. For that purpose the Board maintains a separate laboratory at the entrance to Halifax harbour. In connexion with the Nanaimo station a field research station is maintained at Cultus Lake, B.C., for the study of sockeye salmon. There is also a special laboratory at the Univ. of Manitoba for the study of fish cultural problems in the Prairie Provinces. The work at the St. Andrews station includes a study of the nature of fish muscle, and the changes it undergoes before and after death. At the Halifax station the main problem is that of refrigeration. A study of smoking, salting, and drying fish is also in progress, and canning, fish meals, and fish oils are being investigated. At Nanaimo, B.C., besides sockeye salmon special attention is being given to the occurrence and distribution of plankton in relation to the movements of herring and pilchard. Prince Rupert the preservation of fish by refrigeration and fish byproducts are being studied. For further information as to the work of all the stations, see the Annual Reports (passim) of the Fisheries Branch of the Dept. of Marine and Fisheries, Ottawa.

The publications of the Board are Contributions to Canadian Biology and Fisheries, Studies, and Bulletins. The Directors of the various stations are: Dr. A. G. Huntsman, St. Andrews; Dr. A. H. Leim, Halifax; Dr. W. A. Clemens, Nanaimo; Mr. D. B. Finn, Prince Rupert. The executive office of the Board is at Ottawa; Hon. Secretary-Treasurer, J. J. Cowie, Department of Marine and Fisheries.

#### SCIENTIFIC AND INDUSTRIAL.

The Government of Canada in 1916 constituted the Honorary Advisory Council for Scientific and Industrial Research, now known under the short title—" National Research Council," consisting of 15 scientists and business men, all of whom, excepting the President of the

Council, serve on an honorary basis. This Council has engaged in three major activities: (1) the co-ordination of research work and the organization of co-operative investigations; (2) the post-graduate training of research workers (see App. XXIII. 21 above); (3) the prosecution of research work through assisted research grants. Expenditure in 1929–30, \$462,357, including \$49,990 for scholarships and \$241,704 for assisted researches. More than 40 per cent. of all moneys expended by the Council since it was established has been devoted to the co-ordination and stimulation of research in Univ., Government, and industrial laboratories throughout Canada.

Successful work has already been done in co-operation with the magnesite industry and in co-operation with the Dept. of Agriculture, the United States authorities, and all those working on the problems of wheat rust and grain drying. Steps have been taken to co-operate similarly with the woollen industry, the tanners, and the launderers.

The Council has established two classes of Associate Committees, the first primarily to advise on scientific questions, the second, to direct research on some major problem. In Sept. 1930, 30 Associate Committees were in active operation. 115 investigations in 27 depts. of science are being carried out at 10 Univs. and 15 Govt. and industrial labs. under Associate Committees and with research grants.

(For further particulars, see Canada Yearbook, 1929, pp. 927-31.)

The Canadian Parliament has authorized a capital expenditure of \$3,000,000 for the erection and equipment of National Research Laboratories under the control and direction of the Council. The Laboratories will provide accommodation for researches on industrial problems as well as problems in pure science, and will also serve as a national bureau of standards. Building operations began in the autumn of 1929, and the Lab. was to be finished in 1931. Meantime temporary laboratories are provided, and the National Research Council is building up a scientific and technical staff.

The Laboratories which work in close co-operation with the Laboratories of the Federal and Provincial Govts. and of the Univs. are organized under the following divisions: (i.) Physics, incl. Eng. and Standardization; (ii.) Chemistry, incl. Textiles; (iii.) Biology and Agric.; (iv.) Research information, incl. research library, econ. studies and technical pubns. The Physics division includes completely equipped laboratories for aeronautics. There is already a 9-ft. wind tunnel and a towing tank 400 ft. × 8 ft. for testing aeroplane floats, hulls, and other high-speed craft. The Council publishes quarterly the Canadian Journal of Research.

The Ontario Research Foundation, 47 Queen's Park, Toronto (Director, Dr. H. B. Speakman), founded in 1927 by the manufacturers of the Province and the Provincial Government on a  $\xi$  for  $\xi$  basis for research into industrial and agricultural problems that concern Ontario as a whole.

Researches affecting the woollen, meat-packing, metal, ceramic, and leather industries, animal diseases, fuels, and gas are now under way. The total sum raised from private, commercial, and government sources is at present £800,000; and a million sterling is aimed at.

In 1921 the Province of Alberta established the Scientific and Industrial Research Council of Alberta, which in 1930 was incorporated by act of Provincial Legislature as the Research Council of Alberta. The laboratories of the Council are established at the University in Edmonton. Its principal work is organized in three divisions as follows: (1) Geological Survey, including general surveys within the Province, and special investigations of particular mineral resources in the Province; (2) Fuels, including analyses of mine samples, washing tests, briquetting; and (3) Road Materials, including bituminous sands and other petroleum products for road oiling purposes. The Council is also working on special investigations, such as domestic water supply, soil surveys, and utilization of natural gas. In co-operation with the National Research Council considerable work has been done on the drying of grain.

The Nova Scotia Advisory Board on Fuel Investigation was established by the Provincial Govt. in 1924, and is working in co-operation with the Dominion Dept. of Mines, the Dominion Fuel Board and the National Research Council on experimental work mainly provincial in significance. The work is carried on at the Nova Scotia Technical College, Halifax, and consists principally of chemical analyses and boiler trials.

THE MANITOBA INDUSTRIAL DEVELOPMENT BOARD has recently appointed a special Committee for Scientific and Industrial Research which, after studying the need for research into a number of local problems, have recommended the Government to establish a Manitoba Research Institute.

The Forest Product Laboratories of the Dominion are maintained by the Dominion Forest Service of the Dept. of the Interior. The organization was started on a small scale in 1913 in Montreal, but in now includes 3 well-equipped units: (i.) the Main Laboratories at Ottawa, (ii.) the Pulp and Paper Division at Montreal, (iii.) Branch Laboratory at Vancouver. The Montreal division is working in close co-operation with the Pulp and Paper Assn. of Canada. The total staff, scientific, executive and clerical, numbers nearly 100, over 30 of whom are univ. graduates in science. The premises occupy a floor area of over 1 acre, and the laboratories are organized in the following divisions: (a) Pulp and Paper, (b) Wood Preservation, (c) Timber Mechanics, (d) Lumber Seasoning, (e) Timber Physics, (f) Wood Utilization, (g) Timber Pathology, (h) Markets and Exhibits.

The pulp and paper industry is now Canada's largest industry, and there is a growing appreciation of the importance of scientific processes for the elimination of waste. Railways and other large users of structural timber are more and more resorting to treated timber. The work in timber mechanics has been especially valuable to committees of the Canadian Engineering Standards Assn. in drawing up specifications for

structural timber.

The laboratories are being increasingly used as a bureau of technical information by the wood-using industries. In so far as is practicable,

the data from its own researches or from sources of reference in its very complete ref. library on wood utilization are available. In 1930 over 1000 technical inquiries were dealt with. List of pubns. sent on application.

The work undertaken in the various Divisions includes:

(i.) Main Laboratories. Lumber Seasoning Divn. During the summer of 1930 a survey was made of 105 representative operations in the province of Quebec, New Brunswick, Nova Scotia, and Prince Edward Is. A definite study has been made of the reaction to outdoor conditions of 10 representative Canadian woods.

Timber Physics Divn. A collection of microscopic slides and photomicrographs has been prepared from Canadian timbers and such of the foreign woods as are among the more important competitors of Canadian timber. A study has been made of the factors which affect the rate of sinkage of floating logs and of measures for preventing the sinkage loss. The investigation is being continued. An investigation to determine what variations in density are commonly encountered in wood of each important speciesso as to determine by visual inspection the approximate density of wood within reasonable limits of error. An investigation of birds-eye figure in sugar maple will, it is hoped, result in the isolation of the parasitic fungus causing it.

Pathology Divn. Investigation as to the range of moisture content in wood which will permit the development of wood-rotting fungi.

Wood Utilization Divn. Studies of the effects of seasoning on the floatability of logs and into sawmill waste have been carried out.

(ii.) Pulp and Paper Laboratories, Montreal. Methods for the chem. and phys. testing of pulps. Other investigations include: Fibre differentiation by selective screening; Paper resilience; Paper surface; Definition of Fibre quality; Sulphur Dioxide relationships; Alkaline Process studies; with particular reference to the production of pulp for the manufacture of artificial silk and related products.

(iii.) Vancouver Laboratory. Timber Products Divn. An investigation begun in 1924 into the absorption of moisture by seasoned lumber in storage and transit is being continued. Other investigations include: Kiln-drying; Effect of Seasoning on Insects injuring lumber; Sawmill Waste; Logging Waste; Microscopic Anatomy of important woods; Development of Stain and Decay in lumber during shipment by water (test shipments are being continued). A Reference Collection of pathological material is being made.

Timber Mechanics Divn. The investigations include: The Relationships of Moisture Content to the strength of wood; Retention of Screws and Nails by wood; Tests of Douglas Fir and Lodgepole Pine Telephone

Poles; Strength of Glues prepared from Fish Waste.

Outside research workers are admitted to the Laboratories. Inquiries should be addressed to the Superintendent, Forest Products Laboratories, Ottawa.

THE FUEL RESEARCH LABORATORIES of the Department of Mines were erected in Ottawa in 1927–28. The work of the laboratories is organized in the following divisions: (1) Mechanical Engineering, (2) Coal Carbonization and Briquetting, (3) Oil Shale investigations, (4)

Oils and Natural Gas (Chemical Lab.), (5) Solid Fuels analyses (Chemical

Lab.), (6) Mechanical (machine shops, etc.).

Besides the chemical laboratories and large laboratory-scale research apparatus, the equipment includes: (i.) commercial by-product recovery coke plant; (ii.) experimental domestic heating plant; (iii.) commercial-scale pulverized fuel steam generating plant; (iv.) commercial-scale briquetting plant; (v.) large-scale coal-washing plant. The main objective of the laboratories is "to gather reliable information regarding the chemical and physical properties of the fuels in Canada and to ascertain the best purposes for which they may be utilized." The investigations into solid fuels include, as do those of the British Fuel Research Station at Greenwich (see A. V. 2 supra), a chemical and physical survey of coal seams in situ.

Inquiries to be addressed to The Director, Division of Fuels and Fuel

Testing, Dept. of Mines, Ottawa.

#### MEDICAL.

THE BANTING INSTITUTE FOR MEDICAL RESEARCH, University of Toronto, was opened in 1931. It is devoted to research in Pathology, Bacteriology, and Surgery.

#### II. AUSTRALIA

THE NATIONAL RESEARCH COUNCIL was founded in 1921 to represent Australia in the International Research Council, and also serves as a national academy of pure and applied science (all branches). Address: The Hon. Secretary, National Research Council of Australia, Kelvin House, 15 Castlereagh Street, Sydney.

THE COMMONWEALTH COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH was established by the Science and Industry Research Act, 1926, and has taken the place of the former Institute of Science and Industry, which was constituted in 1920, and had succeeded a temporary Advisory Council of Science and Industry created in 1916. The Council consists of 3 nominees of the Commonwealth Government, the Chairman of each State Committee constituted by the Act, and other persons co-opted for their scientific knowledge. Its main functions are: (a) to carry out scientific researches in connexion with the primary and secondary industries of Australia; (b) to train research workers; (c) to make grants in aid of pure scientific research; (d) to carry out the testing and standardization of scientific instruments and apparatus; and (e) to act as a means of liaison between the Commonwealth and other countries in matters of scientific research. In the formation of the Council, the Government made a grant to it of a sum of £250,000 for research work and investigations for an unspecified period. A like sum was made available to the Council by the Government two years later. The Council has decided to concentrate efforts mainly on 5 major branches, viz.: (a) plant problems, (b) animal problems, (c) forest products, (d) entomological problems, and (e) preservation of foodstuffs, especially cold storage. Already Divisions of Animal Nutrition.

Animal Health, Plant Industry, Soils Research, Economic Entomology, and Forest Products have been organized. The organization of work on cold storage is proceeding. The Council maintains or assists the following *Research Stations*:

For *Citriculture*. A Research Station was established at Griffith, Murrumbidgee Irrigation area, N.S.W., some years ago, and is now owned and financed jointly by the Council and the Water Conservation and Irrigation Commission, N.S.W.

For *Viticulture*. The Council maintain a Research Station at Merbein, near Mildura, formerly under the control of the Mildura Vinevards Protection Board.

For Economic Entomology and Plant Industry. Laboratories at Canberra for Economic Entomology have been erected and equipped. They are designed to allow of their incorporation in future with a central administrative block for the Council and a corresponding laboratory for Plant Industry which will soon be completed.

For Animal Health. The erection of a Laboratory, called "The F. D. McMaster Animal Health Laboratory," has recently been completed in the grounds of Sydney Univ. from a gift of £20,000 by Mr. F. D. McMaster, a pasturalist of Dalkeith, N.S.W. The problems being investigated relate mainly to the health of sheep.

A laboratory for the investigation of animal health problems affecting cattle in Northern Australia is being established at Townsville, Queensland.

For Animal Nutrition. A laboratory has been built at Adelaide in close connexion with the University for fundamental work on animal nutrition problems. This work is linked up with field, calorimetrical, and other work at the Waite Agricultural Research Institute (see below) and with field stations in various parts of Australia.

For Forest Products. A temporary laboratory has been established at Melbourne, and work on timber seasoning, timber utilization and preservation, and other forest product problems is now actively in progress.

For Soils Research. A laboratory erected from a gift to the Univ. of Adelaide by Mr. J. Darling in the grounds of the Waite Agricultural Research Institute, Adelaide, had been equipped and staffed, and is being maintained by the Council as a Soils Research Laboratory.

The Council is working in close co-operation with the State Government Departments, the Universities, and other institutions. It is also co-operating with the British Dept. of Scientific and Industrial Research, and with similar institutions in other parts of the Empire.

COMMONWEALTH SCHOOL OF PUBLIC HEALTH AND TROPICAL MEDICINE (formerly the Australian Institute of Tropical Medicine), Sydney Univ. See p 507.

### Victoria

HORTICULTURAL RESEARCH STATION, Tatura. (Under the Dept. of Agric.) The site covers 105 acres. The work includes investigation into the causes of the unthriftiness in citrus in the Murray Valley; fertilizer trials on apples, vines, and tomatoes; control of insect pests,

esp. the codlin moth; fungus diseases, incl. Brown Rot, Root Rot, Armillaria mellea, Polystictus versicolor, and fungus diseases of tomatoes; problems of storage and transport.

# Queensland

BUREAU OF SUGAR EXPERIMENT STATIONS. Soil research work, sugar mill technology, entomological investigations in relation to insects injurious to sugar cane, and pathological investigations into the control of Top Rot disease and determination of favourable and unfavourable factors, and into the control of Fiji disease are in progress, as well as other major cane diseases. At present outside research workers are not admitted. Address—The Director, Brisbane.

## Western Australia

THE WAITE AGRICULTURAL RESEARCH INSTITUTE, Adelaide, S. Australia (Director, Prof. A. E. V. Richardson), for research in Agric., Agric. Chem., Plant Pathol., Plant Physiol. and Entomol., was founded with a private endowment in 1924 under the control of the University of Adelaide. A Division of Soils, of the Council for Sci. and Indust. Research, has been estabd. under the control of Prof. J. A. Prescott. The Waite Inst. is carrying out co-operative investigations with the Council for Sci. Research and the Empire Marketing Board on the mineral deficiencies of pastures, and with the Council for Sci. Research on virus and soil-borne fungus diseases. Income, £25,000.

For names of staff, see pp. 486-7.

KOONAMORE FIELD LABORATORY is also attached to Adelaide Univ. See p. 488.

THE MOUNT BARKER CO-OPERATIVE FRUIT GROWERS SOCIETY started a small experiment station of 8 acres in 1928, one acre planted with year-old trees. The work includes manurial experiments, green manuring, and different methods of planting and cultivation. Two acres will be planted for further experiments, including a supply of stocks received from East Malling.

#### III. NEW ZEALAND

THE NEW ZEALAND COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, Wellington, N.Z., was established in 1926 and functions through a corresponding Dept. of Scientific and Industrial Research. The Council acts in an advisory capacity to the Government on all aspects of research, with the exception of medical research, and, through the Dept., undertakes specific research work. Investigations are proceeding in connexion with the following: Dairying; Wheat, Flour, and Bread production; Seeds and Plants: Noxious Weeds Control; Mineral Content of Pastures; Phormium; Pig production; Pork and Bacon manufacture; Wool; Fuel; Fruit; Cold Storage; Pakihi Lands; Leather; Standards and Standardization; and Radio. Wherever possible the investigations are carried out at already established institutions, such as the four University Colls., the two Agricultural Colls.,

Cawthron Institute, and the laboratories of the Dept. of Agriculture. Each research fund is under the immediate direction of a Committee representative of the industry contributing towards the cost of the work, and of the Council. Funds for research are secured partly from Government grants, partly from amounts provided by the various industries, and from the Empire Marketing Board. The expenditure on research for the financial year 1930 was approximately £46,000, of which £19,000 was provided by industry and the E.M.B.

The branches of the Dept. of Scientific and Industrial Research, viz. Dominion Laboratory, Geological Survey Office, Meteorological Office, Dominion Observatory, Christchurch Magnetic Observatory, and Apia Observatory, all undertake a certain amount of research work, and their staffs are available for co-ordinated investigations.

CAWTHRON INSTITUTE, Nelson, founded 1915, is a privately endowed research Institute, income £12,000 p.a. and grants from the N.Z. Department of Sci. and Ind. Research and fruit interests, whose main lines of investigation are concerned with the agricultural problems peculiar to the Nelson district. On account of the importance of fruit-farming in that district, the investigations deal with soil surveys, fruit-tree culture and manures, orchard entomology, mycology, and chemistry, and fruit storage. With the assistance of grants from the Dept. of Sci. and Ind. Research, work is also being carried out on biological control of noxious weeds, mineral content of pastures, cold storage of fruit, and utilization of Pakihi soils.

THE STATE FOREST SERVICE (headquarters, Wellington) conducts investigations into the development and utilization of both indigenous and exotic forest timbers.

THE DEPARTMENT OF AGRICULTURE undertakes (1) veterinary research at its Wallaceville Laboratory near Wellington, (2) farm management investigations, (3) chemical investigations of all problems connected with agriculture.

Canterbury Agricultural College, Lincoln. An annual grant of £3700 for research is made to Canterbury Agricultural Coll., and, as a result, investigations are proceeding on wheat and other cereal crops, grasses and pasture plants, animal nutrition and disease, farm economics and wool production. The Wheat Research Institute is established in association with Canterbury Agricultural College.

MASSEY AGRICULTURAL COLLEGE, Palmerston North. Research into wool production, phormium culture, grasses and pastures, and plant diseases are proceeding. The DAIRY RESEARCH INSTITUTE and the PLANT RESEARCH STATION are located adjacent to Massey Agricultural College.

UNIVERSITY COLLEGES AT AUCKLAND AND WELLINGTON, CHRIST-CHURCH AND DUNEDIN, undertake research work in a number of different subjects. This work is promoted by outside grants, or by funds specially available to each College, or by research scholarships, particularly at Dunedin and Auckland.

National Research Scholarships. See Appendix XXIII. 23.

#### IV. SOUTH AFRICA

THE RESEARCH GRANT BOARD of the Union of South Africa was instituted in 1918. The principal functions of the Board are to advise the Government generally regarding the encouragement of research in the Union and to administer all Government grants in aid of research. It is also the body through which the Union of South Africa is affiliated to the International Research Council. During the financial year 1925-26 the Board was provided with a sum of £1850 for the work of miscellaneous research. Since that date a sum not exceeding £2000 p.a. has been placed at the disposal of the Board by the Government. In addition to grants-in-aid for the furtherance of research in connexion with the development of the country, the Board appointed a Committee to make a physical and chemical survey of the coal resources of the Union, which, on the completion of its work, was dissolved in 1928. The Board, at the request of the Carnegie Corporation, is also collaborating with the Dutch Reformed Church in research in connexion with the "Poor White" problem of the Union.

INTELLIGENCE SURVEY. A Committee was appointed by the Board in 1924 to conduct a comprehensive intelligence survey of the Union of South Africa. A system of tests considered suitable to the country was drawn up, and norms have been worked out for children of the ages 120 to 192 months old. The results are at present in course of publication. The results of the survey are appearing as part of the report on the Poor White Question.

VETERINARY RESEARCH LABORATORY, Onderstepoort, Transvaal (Director—Dr. P. J. du Toit), is probably one of the largest Veterinary Research institutions in the Empire. The staff includes 25 professional officers. The most important subjects of research comprise protozoal, virus, and bacterial diseases, helminthology, entomology, poisonous plants, the pathology of these diseases and special pathological problems, mineral metabolism, and other nutritional problems, sterility in cattle and sheep, and other obstetrical and physiological problems. A number of vaccines and wireworm remedy for sheep are prepared and issued on a large scale. Moreover, a considerable amount of diagnostic work for stock farmers is done.

The Faculty of Veterinary Science of the Univ. of South Africa associated with the training of veterinarians in the Union has been admirably incorporated in the activities of the Research Laboratory at Onderstepoort.

Three Fellowships for research on animal health at the Laboratory are offered. See Appendix XXIII. 24.

Inquiries should be addressed to the Director of Veterinary Services, P.O. Box 593, Pretoria.

Low Temperature Research Laboratory, Cape Town. Established in 1926 by the Union Department of Agriculture as a section of the Division of Plant Industry for investigations into the safe transportation of perishable products. The Officer-in-Charge is also Technical Adviser to the Perishable Products Exports Control Board and

designer of all pre-cooling establishments belonging to the Government Railways. Close contact is maintained with the Low Temperature Research Station, Cambridge, and other Dominion research workers.

Forest Research Station, Deepwalls, Knysna, C.P., maintained by the Union Forest Department for the study of various ecological and biological features of the indigenous forests, the rate of growth of natural regeneration and of plants set out in forests under varying degrees of canopy and kinds of site.

STELLENBOSCH UNIV., DEPT. OF POMOLOGY, for study of deciduous and citrus fruit trees. The systematic study of varieties, survey of farming conditions and root stock investigations.

Viticultural Dept. for studies in wine and spirit production, table grapes, raisins, etc., new grape varieties, different methods of trellising and pruning, inter-relation of stock and scion, etc.

THE EMPIRE COTTON GROWING CORPORATION (see Appendix XXIII. 3 above) maintains an Experiment Station for plant breeding and plant physiology in connexion with cotton-growing at Barberton, Eastern Transvaal. Director—F. R. Parnell, M.A. Camb. The Station is equipped with new laboratories and an experimental farm. There is also a Station for plant breeding at Magut, near Vryheid, Natal.

#### V. INDIA

## AGRICULTURE AND VETERINARY SCIENCE.

# Government of India

[For the following information as to the Imperial Council of Agricultural Research, the Editor is indebted to the Vice-Chairman of the Council, Diwan Bahadur Sir T. Vijayaraghavacharya, K.B.E.]

The Imperial Council of Agricultural Research was constituted by a Resolution of the Govt. of India (May 23, 1929) with the following objects:

- (a) The promotion, guidance, and co-ordination of agricultural research throughout India.
- (b) The training of research workers under a scheme of research scholarships or in other ways.
- (c) The collection and dissemination of information in regard to agricultural and veterinary matters generally.
- (d) The publication of scientific papers, etc.

The Govt. of India undertook to make the following grants to the Research Council, subject to the vote of the Central Legislature:

- (a) A grant to cover the administrative charges of the Council;
- (b) An annual grant for research of five lakhs;
- (c) A lump grant of 25 lakhs to form the nucleus of a non-lapsing research fund which would enable the Council to make definite provision for research schemes.

The Governing Body is a non-technical body presided over by the Hon, Member of the Viceroy's Council in charge of the portfolio of

agriculture, and including as members the 9 Ministers of Agriculture in the provinces, 3 representatives of the Central Legislature, 2 representatives of Commerce, 2 representatives of the Advisory Board, and such addnl. representatives as the Governor-General in Council may appoint, a provision which will allow of the representation of Indian States whenever necessary. The Vice-Chairman of the Governing Body is Vice-Chairman of the Imperial Council of Agric. Research and its principal administrative officer. The Advisory Board is the technical section of the Council, and includes the reprs. of provincial agric. and vet. depts. of research institutes and of assns. organized for research and of univs., a co-operative representative and addnl. scientific reprs.

The advisory work connected with the Govt. of India's policy towards agricultural matters in general, and those matters such as legislation against diseases and pests and the regulation of imports which are reserved for central legislation and central executive action, is now performed by the Vice-Chairman of the Research Council in consultation with his Expert Advisers. There is the further important development that matters of general importance can be referred by the Govt. of India and by Local Govts. and such Indian States as have joined the new organization to the Imperial Council of Agric. Research as a whole.

The whole-time staff consists of the Vice-Chairman, 2 Expert

Advisers and the Secretary.

The Council has been registered as a Society under the Societies Act in order that it may possess the financial independence necessary for

The research side of the Society is defined as follows in the Memorandum of Association:

- (a) To aid, develop and co-ordinate agricultural and veterinary research in India by promoting scientific (including technological) research, instruction, and experiments in the science, methods, and practice of agriculture (incl. marketing of agric. produce) and by promoting veterinary research and instruction in vet. science, by the diffusion of useful information and by such other means as appear calculated to develop agric. and vet. research.
- (b) To act as a clearing house of information not only in regard to research, but also in regard to agric. and vet. matters generally.
- (c) To establish and maintain a research and reference library in pursuance of the objects of the Society with reading and writing rooms, and to furnish the same with books, reviews. magazines, newspapers, and other publications.

In addition to its main objective—the fostering of research work the Council is charged with the dissemination of information and the encouragement of post-graduate training in the various branches of science and technology as applied to agric. In countries like India, where research workers are necessarily scattered and distances great, there is obviously need for an agric. information bureau, and a start has been made by subscribing to the 8 Imperial Agricultural Bureaux recently established in England on the recommendation of the Imperial Agricultural Conference of 1927 (see A. VIII. supra). The Expert Advisers to the Imperial Council of Agric. Research will act as official correspondents with the bureaux, but the essence of the new organization is that individual res. workers will themselves correspond freely with the bureaux. There have already been gratifying indications that the Imperial Council of Agric. Res. will receive the whole-hearted support both of agric. workers in India and res. workers in the cognate sciences in their efforts to collect, for supply to other workers in India and for transmission to the Imperial Bureaux, full particulars of work done in India and suggestions for further work to fill in gaps in existing knowledge. The measures necessary to build up in India a more adequate corps of scientific workers for the improvement of Indian agric. are being continuously studied.

The Res. Council, though at present mainly financed by the Govt. of India, is free to receive contributions from other sources, and has in fact already received the handsome gift of two lakhs of rupees from the Govt. of H.E.H. the Nizam's Dominions. It is hoped that many more such contributions from Indian States and private benefactions will be received. The Res. Council's power to aid Indian agric. is only limited by its financial resources. It stands in the same relation to all res. institutions, whether official or unofficial, central or provincial, and promotes res. by grants to existing instns. The res. grants so far sanctioned amount to about Rs. 1,700,000 (about £127,000).

AGRICULTURAL RESEARCH INSTITUTE, Pusa, Bihar, founded 1904 from a fund of £30,000 given to the Viceroy, Lord Curzon, by Mr. Henry Phipps, an American philanthropist, for some object of public utility in India, preferably scientific research. Part of this gift was spent in building the Pasteur Inst. at Coonoor, S. India, and the balance on a laboratory for agric. research at Pusa. The scheme was later enlarged, and a college and research inst., with an experimental and demonstration farm of 830 acres, was established at Pusa under the Central Govt. There are 6 sections—Agric., Bot., Chem., Mycol., Entomol., and Bacteriol; Herbaria, a museum, and a scientific library. The research is devoted in the main to problems of all-India importance. The Inst. also supplies information and advice to inquirers.

IMPERIAL INSTITUTE OF VETERINARY RESEARCH, Muktesar, U.P., conducts research in diseases of domestic animals. Applications from outside research workers to visit the Inst. should be addressed to the Director.

Telegrams—" Vetex," Muktesar-Kumaun.

Central Irrigation, held in Delhi in Nov. 1930, it was agreed to establish a Central Bureau as a consultative body and secretariat under the control of a sub-committee of the Board consisting of the president for the year, the consulting engineer to the Govt. of India, and one other engineer. The president elected by the Board for the first year is Sir Bernard Darley, Chief Irrigation Engineer in the United Provinces. The Central Board will meet annually to discuss important problems and, as an advisory body, will co-ordinate investigation, experiment,

and research in the different provinces. A general all-India conference of irrigation engineers will be held every third year.

## Assam

TOCKLAI EXPERIMENTAL STATION is maintained by the Indian Tea Assn. It is sp. concerned with the improvement of manufacture, and the study of factors influencing crop-production. Outside research workers not received.

## Indore

INSTITUTE OF PLANT INDUSTRY, Indore. Established 1924. Incorporated 1928 as a Society. Many of the States in Central India and Raiputana are members, giving yearly subscriptions and donations. Indian Central Cotton Committee provided buildings and equipment and guarantee annual grants. Objects: (i.) Investigation of all matters relating to the production and improvement of raw cotton in India. (ii.) Agricultural development of the territories of the Princes and Chiefs who are members of the Society. (iii.) Training of nominees of such Princes and Chiefs and of advanced students nominated by the Indian Central Cotton Committee. Occasionally outside research students are accepted.

Is carrying on research on cotton, especially in relation to the black soils of the district and production of improved varieties for local conditions; also on other crops bound up with the agricultural economy of the areas dealt with. The Director (F. K. Jackson, N.D.A., Dip. Agr. Camb.) is also Agricultural Adviser to States in Central India and

Rajputana.

# Madras

There are 3 Fruit Stations, at Coonoor, Burliear, and Kallar. Coonoor is investigating varieties of Japanese plums, and miscellaneous subtropical fruit, especially in relation to climatic conditions. and Kallar are attacking the problem of propagating the mangosteen.

# Mysore

THE COFFEE EXPERIMENT STATION of Mysore State Dept. of Agric.. nr. Balehonner in the Kadur district, was started in 1925. It has an area of 280 acres. Work on disease problems is closely co-ordinated with breeding and grafting work, sp. areas being set aside for testing disease-resisting powers of selections.

The United Planters Association's (S. India) Coffee Scientific Officer is attached to the Station, and is engaged on phytopathological investigation in co-opn. with the Dept. in work on disease resistance in the selections made. Physiol, problems bound up in flower bud production, fruit setting, and fall of partly developed fruit are also being studied, and the root systems of commonly planted types of coffee.

There are also extensive research laboratories in Bangalore for Agric. Chem., Plant Breeding, Plant Pathol., Entomol., and a Veterinary Serum Institute where research is prosecuted into the diseases of cattle and sheep. All these are under the control of the Director of Agriculture, Bangalore, Mysore State, to whom applns should be made by investigators wishing to work in the labs.

See also under Medicine-Pasteur Inst. of Southern India.

### FORESTRY.

# Government of India

The Forest Research Institute and College, Dehra Dun, U.P. (President—A. D. Blascheck, Oec.D.), the largest in the Empire, if not in the world, opened Nov. 1929. Dehra Dun has been a centre for scientific forest work since 1878. The 1200 acres surrounding the Institute, the depts for silviculture, forest economy, forest entomology, forest botany and chemistry, and the mills and workshops for sawing, testing, and seasoning timber cost £850,000. The Institute's method of seasoning Indian walnut for rifle stocks has saved the Government £10,000 p.a., while an epidemic of boring insects which had destroyed 5½ million trees in the Sal forests has recently been successfully suppressed. Inquiries should be addressed to the President, Forest Research Institute and College, Dehra Dun, U.P., India.

### INDUSTRIAL.

# Bengal

Bengal Tanning Institute (formerly Calcutta Research Tannery), Calcutta, maintained by the Bengal Govt., combines research with teaching. The principal subjects for research are the utilization of Indian tanning materials, investigation of Indian hides and skins, and adaptation of modern methods of tanning to Indian conditions. Investigations of a chemical nature are done at the laboratory, and process of leather manufacture is studied at the demonstration tannery. The Inst. maintains two peripatetic demonstration parties who visit small tanneries in the interior to introduce modern methods of tanning to them. A shoe and leather goods dept. has lately been added. Departmental bulletins publish reports of researches. Ample facilities for research are available to students.

INDUSTRIAL RESEARCH LABORATORY, Calcutta, maintained by the Bengal Govt. The Laboratory has two depts., Chemical and Engineering. In the former research is conducted into the industrial utilization of less known raw materials, produced or natural, in the Presidency; also into the development of improved processes for the Chem. industries. In the Engin. Lab. research is conducted in the preparation of alloys of particular specifications of heat treatment of iron and steel, industrial dry-cutting and pressing problems, labour-saving appliances and improvement of machinery and practice. No regular provision for research students.

# Bihar and Orissa

THE INDIAN LAC RESEARCH INSTITUTE, Namkum, Ranchi, Bihar and Orissa, formerly maintained by the Indian Lac Association for Research,

Royal Exchange, Calcutta, is financed by a cess on the exports of shellac from India. It conducts research into the cultivation of lac and the manufacture of shellac.

This research is important, as the competition from synthetic products is on the increase. It falls under three main heads, Bio-Chemical, Entomological, and Physico-Chemical; and consists in, firstly, the investigation of the morphology, bionomics, and physiology of the lac insect *L. lacca*, and of the insect parasites and predators affecting it; secondly, in the investigation of the host trees on which the insect lives, their growth, insect pests and methods of cultivation; and thirdly, the relationship between insect and host.

The Physico-Chemical research consists in the investigation of improved methods of manufacture, the standardization of the resulting shellac, and the use of shellac in various industries.

The Lac Cess Act, 1930, provides for Govt. control of the Indian Lac

Research Inst. It does not affect the objects of research.

Outside research workers not admitted. Inquiries to the Secretary, Indian Lac Cess Committee, Namkum, Ranchi, Bihar and Orissa.

## Bombay

TECHNOLOGICAL LABORATORY, Matunga, Bombay (Director—Nazir Ahmad, M.Sc., Ph.D.), maintained by the Indian Central Cotton Committee. Opened in Dec. 1924; total cost, £80,000. Its chief work is the making of spinning tests on cotton grown in all parts of India, and the investigation of fibre properties affecting the spinning properties of cotton. The Committee makes grants-in-aid to Provincial Depts. of Agric. for research work on cotton. Outside research workers not admitted as a rule.

## United Provinces

HARCOURT BUTLER TECHNOLOGICAL INSTITUTE, Cawnpore, U.P., estd. 1921. Principal—H. D. H. Drane, M.Sc. Liv., Ph.D. Lond. This Inst., which is primarily intended to train men for responsible positions in industry, also has facilities for research. Organized in the following depts.—Gen. and Applied Chem., Leather, Oil, Sugar. There is also a general workshop, engin. lab., and library. Contact with the requirements of industry is maintained by an Advisory Committee and a Standing Committee on Research.

There are 2 Res. Fellowships of Rs. 100 p.m. for 3 yrs.

[For further information about many of the foregoing instns., see Handbook of Indian Universities, pubd. by the Inter-University Board, Cawnpore, India.]

## Pure Science.

# Bengal

THE BOSE RESEARCH INSTITUTE, Calcutta, founded by Sir J. C. Bose, F.R.S., the Director, in 1917, is concerned especially with Plant

and Animal Biology. Workers of all countries are admitted so far as the limited accommodation permits. It receives an annual grant from the Govt. of India of Rs. 103,000.

The Indian Association for the Cultivation of Science, 210 Bowbazar Street, Calcutta, founded in 1876 by the late Dr. Mahendra Lal Sircar with the object of providing facilities for scientific research in India, is equipped with a Laboratory built at the expense of the late Maharaja of Vizianagram, a library, an astronomical observatory, and a fine lecture hall. Considerable improvements in the Laboratory have been made of recent years, and it is now admirably adapted for researches in various branches of Physics, Chemistry, and Mineralogy. The direction of research is in the hands of the Hon. Sec., Sir C. V. Raman, F.R.S., Palit Prof. of Physics, Univ. of Calcutta. The Labis open to qualified workers from all parts of India. Special facilities for work in X-rays, magnetism, and spectroscopy. The Institute receives a grant of Rs. 20,000 p.a. from the Govt. of India.

# Bombay

THE ROYAL INSTITUTE OF SCIENCE, Bombay, is designed to conduct undergraduate teaching side by side with post-graduate research in the Departments of Chemistry (Physical, Inorganic, and Organic), Physics, Zoology, and Botany.

# Mysore

The Indian Institute of Science, Bangalore (*Telegrams*—Science, Bangalore, Code ABC 5th edn.), established and originally endowed by Sir Dorabji J. Tata and the late Sir Ratan Tata, has as its object the promotion of advanced studies and original research with special regard to the educational and economic interests of India (v. p. 653). Its total income is now approx. Rs. 5.80 lakhs, towards which the Government of India contributes Rs. 1.5 lakhs, the Government of Mysore half a lakh, the Government of Hyderabad Rs. 10,000, and the Govt. of Madras Rs. 5000. During recent years the Dept. of Elect. Technology has been greatly enlarged in order to satisfy the demand for qualified elect. engineers caused by electrical developments in India.

## MEDICINE.

Medical research is systematically arranged for by the Government of India, either directly or through local Govts., at central or provincial institutions.

# Government of India

The Central Research Institute, Kasauli (*Telegraphic Address*—" Problem"), is the Medical Research Institute of the Government of India, situated in the Himalayan foot hills, about 50 miles from Simla. With it is associated the Malaria Survey of India, at present financed by the Indian Research Fund Association until such time as it may be taken over by Govt. In a scheme for a new and enlarged Institute the Central

Medical Research Institute will consist of at least 4 sections—Bacteriology, Medical Biology, Nutritional Research, and the Malaria Survey.

In addition to the main Institute there are two sections: Serum and

Vaccine Section and Section of Medical Entomology.

The functions of the Institute are of an All-India character and only incidentally local. It is the headquarters for basic research, inquiries in the field and other medical research activities connected with the Government of India, and is very closely linked with the Indian Research Fund Association which maintains a publication office for the Indian Journal of Medical Research and Indian Research Memoirs, a special library for the assistance of Indian Research Fund Assn. workers in the field, and a stores at the Institute. The Inst. also manufactures on a large scale anti-typhoid, anti-cholera, and influenza vaccines and antivenomous serum (antivenin), of which, taken together, about 2 million c.c. are issued annually.

General facilities are given to a certain number of persons to study or gain experience in the laboratories, but the chief outside relations are with researches under the Indian Research Fund Assn., now largely

responsible for the conduct of medical research in India.

The Director's office edits the *Indian Journal of Medical Research* and the *Indian Research Memoirs*, in which Journal and Memoirs most of the results of medical research work in India are published. The Malaria Survey of India publishes the *Records of the Malaria Survey of India*, a new series intended for the publication of important malaria papers and memoirs.

Inquiries should be addressed to the Director.

## Assam

The King Edward VII. Memorial Pasteur and Medical Research Institute, Shillong, was built from part of the proceeds of the Memorial Fund to King Edward VII. It was opened in 1917, and is maintained by the Government of Assam. The staff consists of the Director, who is an officer of the Research Dept., a Military Asst. Surgeon, a Military Sub-Asst. Surgeon, and one or more additional

officers engaged from time to time on special Researches.

The Institute is the headquarters of the Assam Medical Research Society recently formed to investigate communicable diseases in Assam. It is at present mainly concerned with researches on cholera and dysentery bacteriophages, which are being used on a large scale in Assam. The Institute prepares all the cholera and T.A.B. vaccine for the Province of Assam, carries out routine examination for medical officers, and assists the Public Health Dept. with the investigations of epidemics. The laboratories are well equipped and up-to-date, and accommodation can generally be made for research workers. Inquiries should be addressed to the Director.

# Bengal

School of Tropical Medicine and Hygiene, Calcutta, v. pp. 605-606.

## Bombay

The Haffkine Institute, Parel, Bombay (Director—Brevet-Col. F. P. Mackie, K.H.S., O.B.E., I.M.S., M.D., M.Sc., D.P.H., F.R.C.S., F.R.C.P.; Asst. Directors—Major S. S. Sokhey, I.M.S., M.A., B.Sc., M.D.; Dr. S. N. Goré, L.M. & S. Bombay), is the principal centre of Plague research in India. Researches are also being carried on in bio-chemistry of tropical diseases, the pharmacology of indigenous drugs, antirabic inoculation, tuberculosis, sprue, bacteriophage, and maternal mortality. The last four are carried on under the Indian Research Fund Association. The Institute is the seat of manufacture of Haffkine's plague prophylactic for the East. It also functions as the principal diagnostic centre for the Bombay Presidency and adjacent Indian States. It is one of the largest and best equipped laboratories in the East, and can supply facilities for all kinds of research. Applications may be made to the Director.

## Madras

THE KING INSTITUTE OF PREVENTIVE MEDICINE, Guindy, Madras, about 7 miles from Madras, founded 1903 and named after Col. W. G. King, C.I.E., I.M.S., then Sanitary Commissioner of Madras, who was chiefly responsible for its inception. Director-Lt.-Col. H. H. King, At first its main work was the supply of vaccine lymph to the Madras Presidency, but its activities have been greatly extended. At present they are as follows: (For the whole Presidency) (1) The only lab. for the manufac. of vaccine lymph; (2) the lab. for the manufac. of all bacterial vaccines except plague, and of sterile solutions and culture media; (3) the main gen. bacteriological lab. for clin. bacteriological and serological diagnostic purposes; (4) the only Govt. Pub. Health Lab. for the bacteriolog. and chem. examn. of water supplies, milk, food, etc. (it now includes the lab. for the Public Analyst to the Govt. of Madras); (5) a cold storage and distributing centre for sera for human and vet. use; (6) a gen. clinical and pub. health research lab. and the centre for 3 mobile investigation units; (for all the Madras Hospitals except the Gen. Hospl.) (7) the clin. bacteriological lab.

The Inst. covers several acres of ground and consists of a main building for the bacteriolog. and chem. work, a new subsidiary block for vaccine lymph work, and many outbuildings. It has its own water and gas supply, runs a large cold store and makes its own ice, and has a set of experimental water filters with storage tanks and sand and mechanical filters. Staff: Director, I Public Analyst, 2 Asst. Directors, 8 Asst. Surgeons, 2 non-med. gazetted Senr. Bacteriolog. and Chem. Assts., I Sub-Asst. Surg., 6 Junr. Bacteriolog. Chem. and Vaccine Assts., together with lab. attendants and other subordinates—total, 186.

The work done by the *Mobile Investigation Units*, the first of their kind to be formed in India, has justified their existence (cf. the *Annual Report* for 1926-27).

Recent research includes investigations into vaccine lymph, filariasis, kala-azar, relapsing fever, malaria, dysentery, cholera, puerperal sepsis, and the purification of water.

# Panjab

Pasteur Institute of India, Kasauli. Telegrams—" Pasteur." The Institute exists primarily for the provision of antirabic treatment to persons who are at risk owing to bites from, or contact with, rabid animals. It has also 8 civil and 16 military treatment centres. Total no. treated annually about 10,000. The Institute is at present carrying on two researches, one on the therapeutic and morphological aspects of rabies, and one on the Trypanosomidæ. Grants amounting to Rs. 40,391 p.a. to finance these researches are received from the Indian Research Fund Assn. Ample accommodation for outside research workers, who must obtain permission in the first instance from the President of the Pasteur Institute Assn. Owing to the amount of accommodation available and facilities for obtaining and housing large animals, such as monkeys, the Inst. would be especially suitable for work on filtrable viruses. Inquiries to be addressed to the Director.

# Southern India

PASTEUR INSTITUTE OF SOUTHERN INDIA, Coonoor (Director-Major K. R. K. Iyengar, I.M.S.). Telegraphic Address-Lyssa. Built with a portion of a fund of £30,000 given to the Viceroy, Lord Curzon, by Mr. Henry Phipps, an American philanthropist. In addition to affording antirabic treatment for the whole of Southern India, research work on rabies, malaria, kala-azar, filariasis, and on entomological and other subjects has been carried out by workers at the Institute, and the results have been published in the Indian Journal of Medical Research. following investigations are in progress: (1) Comparative experiments to determine the immunizing value of various strengths of etherized and carbolized sheep vaccine used in antirabic treatment; (2) inquiry into the presence of choleraphage in well waters before, during, and after an epidemic of cholera; (3) inquiry into the development, duration, and restoration of immunity by formalinized vaccines. Since 1918, accommodation has been given to the workers on nutritional research under the directorship of Col. R. McCarrison, I.M.S., financed by the Indian Research Fund Association.

## Burma

Pasteur Institute of Burma, Rangoon. (Telegrams—"Virus," Rangoon.) Offg. Director—Major R. H. Malone, M.D., D.P.H., I.M.S. Opened 1915, (1) to carry out antirabic treatment, (2) to act as the Govt. Bacteriological Laboratory for Burma. Routine bacteriol. examns. form the greater part of its work. Research on subjects for which there are facilities undertaken through grants usually obtained from the Indian Research Fund Assn. Subjects hitherto studied are beri-beri, leprosy, leptospirosis, antirabic vaccine, bacteriophage in dysentery and cholera, and water bacteriology. An occasional worker may be given lab. facilities by arrangement with the Director.

The Indian Research Fund Association, Simla, supported by its grants from the Government of India, assists in financing inquiries by

all these institutions, and employs not only Indian Medical Service Officers but also workers outside the Services in studying the most urgent tropical disease problems. The objects of the Association are the prosecution and assistance of medical research, the propagation of knowledge and experimental measures generally in connexion with the causation, mode of spread, and prevention of diseases, primarily those of a communicable nature. All proposals for research under the Association are examined by the Scientific Advisory Board, which consists of experts chosen from the Research Institutes of the country as well as from the central medical administration. This Committee is thus able not only to assess the value of proposals, but also to co-ordinate and prevent overlapping, and it is largely on its recommendations that the grants from the Association are made. Apart from grants-in-aid to teachers, bureaux, and publications, it has financed numerous researches, the selected results of which are published quarterly in the Indian Journal of Medical Research and its Memoirs, and in the Records of the Malaria Survey of India.

### VI. CEYLON

Rubber Research Station, Culloden Estate, Neboda, Ceylon. *Telegrams*—Rubrs, Peradeniya. A Rubber Research Scheme is financed by a cess levied on all rubber exported. It employs 4 technical officers, who are responsible for research work into rubber problems and for visits to estates. Research work is undertaken in laboratories which have been erected on Culloden Estate, Neboda. The whole Scheme is controlled by a Board of Management, of which the Director of Agriculture is Chairman. Address inquiries to the Secretary, Rubber Research Scheme (Ceylon), Peradeniya.

A TEA RESEARCH INSTITUTE was estabd. by the Tea Industry in 1926. It is controlled by a Board of Management of 10 members, representative of various interests connected with tea. The Director of Agric. and Colonial Treasurer are also on the Bd. Tea pests are dealt with mainly by the Inst. Laboratory—St. Coombs, Talawakelle, Ceylon.

#### VII. MALAYA

The Rubber Research Institute of Malaya, Post Office Box 270, Kuala Lumpur, Federated Malay States. (*Telegrams and Cables—* "Searching," Kuala Lumpur.) Estd. 1925 by the Plantation Rubber Industry of Malaya for investigations of all problems relating to the cultivation of rubber, diseases and pests of rubber, the treatment of latex, and the preparation of raw rubber for the market. The Inst. is managed by a Board consisting of: The Director of Agriculture, Straits Settlements and Federated Malay States; three members nominated by the High Commissioner, Federated Malay States; and five or six nominated by the Rubber Growers' Associations. It is financed by means of a cess on all raw rubber produced in, and exported from, Malaya. Organization: Director, Secretary, Botanical, Chemical, Pathological, Soils and Field Divisions. Experiment Station (approx.

2000 acres), 16 miles from Kuala Lumpur. Facilities for the admission of private research workers by special arrangement with the Board.

London Advisory Committee of the Institute: 2, 3, and 4 Idol Lane,

Eastcheap, London, E.C.3.

Publications. Journal (quarterly), Annual Report, Manuals, Special Bulletins, Leaflets, and Information Cards.

All communications should be addressed to the Director.

Institute for Medical Research, Kuala Lumpur (Director—A. N. Kingsbury), scientific staff of 10 with 1 research student. New buildings completed in 1928 include Pasteur treatment rooms and 12 labs., with a compound of 25 acres containing animal houses and insectarium, residential quarters, and other plant. The Inst. is an integral part of the F.M.S. Med. Dept., and acts as the lab. centre for the country. Fully half the time of the staff is devoted to research, which includes at present cancer incidence, malaria, tuberculosis, leprosy, trop. typhus, and other trop. diseases. Results are pubd. in Studies and Bulletins. Ample space and facilities for visiting workers.

# VIII. EAST AFRICA—Tanganyika Territory

The East African Agricultural Research Station, Amani, via Tanga (Telegrams—Director, Amani), which was opened in 1927, is a central research station maintained by the Governments of the East African Colonies and Dependencies (Kenya, Uganda, Tanganyika Territory, Zanzibar, Nyasaland, N. Rhodesia), and working on fundamental problems connected with East African crops in co-operation with the local Departments of Agriculture. The staff consists of the Director (W. Nowell, C.B.E., D.I.C.) and nine scientific officers, as well as subordinate staff. The Station is situated at an altitude of about 3000 feet in the Usambara Hills in the Tanga Province of the Tanganyika Territory, near Muhesa on the Tanga-Moshi railway. In addition to laboratories, experimental plots, etc., there is a large coffee estate attached to the Station.

The Station is primarily devoted to the investigation of problems involving "long-range" and "wide-range" research under the heads of plant pathol., soil science, entomol., plant physiol. and plant genetics. It is not a teaching institution, and the admission of unofficial research workers would have to be the subject of special arrangements.

#### IX. SUDAN

THE WELLCOME TROPICAL RESEARCH LABORATORIES, Gordon Memorial College, Khartoum, founded, equipped, and presented by Dr. Wellcome to the Sudan Govt. *Director*—R. G. Archibald, C.M.G., D.S.O., M.D. Purposes:

(a) To promote the study, bacteriologically, of tropical disorders, esp. the infective diseases of both man and beast peculiar to the Sudan, and to render assistance to the officers of health, and to the clinics of the civil and military hospitals.

(b) To aid experimental investigations in poisoning cases by the detection and experimental determination of toxic agents, particularly the obscure potent substances employed by the natives.

(c) To carry out chem. and bacteriol. tests in connexion with water, foodstuffs, and health and sanitary matters as may be found desirable.

(d) To undertake the testing and assaying of agric., mineral and other substances of practical interest in the industrial development of the Sudan

Private research workers admitted to the Labs. from time to time as far as accommodation permits. Application to the Director.

#### X. WEST INDIES-Trinidad

The Empire Cotton Growing Corporation (see App. XXIII. 3 above) maintains a Research Station for the investigation of fundamental problems relating to the genetics and physiology of the cotton plant, at St. Augustine, Trinidad. Hd. of Genetics Dept., Dr. S. C. Harland; Hd. of Physiol. Dept., Dr. T. G. Mason. The Station is in close connexion with the *Imperial College of Tropical Agriculture*, where a great deal of research is going on into various aspects of tropical agriculture.

Low Temperature Research Station, Imperial College of Agriculture, for study of bananas, v. p. 474.

## XI. BERMUDA

The Bermuda Marine Biological Research Station. The Station, which has worked on a small scale for 25 yrs., has received a grant of £2500 from the Empire Marketing Board and of £50,000 from the Rockefeller Foundation for the purpose of developing large-scale oceanographical investigations to be linked up with those of the newly founded Woods Hole Oceanographical Institution, U.S.A. The Govt. of Bermuda has provided a site of 12½ acres, and is making an annual grant of £200 for 10 yrs. towards its maintenance. The Trustees appointed include 3 British experts.

#### C. INTERNATIONAL SETTLEMENT, SHANGHAI

HENRY LESTER INSTITUTE OF MEDICAL RESEARCH, Shanghai (Director—H. G. Earle, M.A., M.B.). Founded in 1928 under a British Board of Trustees (The Lester Trust) by the late Henry Lester of Shanghai "for the study and teaching in the English language of medical science and surgery."

The work of the Institute is at present being carried on at the Lester Hospital, where a special clinical unit has been established for research in medicine and surgery. An independent well-equipped modern building is also in process of erection, and will be ready for occupation during 1932. Facilities will be provided for research in all branches of medical science, including physiology, bio-chemistry, pharmacology,

pathology, bacteriology, parasitology, experimental medicine and surgery, while a department of medical statistics will form a feature of the activities of the Institute.

A small nucleus staff of men who have been connected with medical work in China has already been appointed, and it is now proposed that future staff shall be recruited mainly through the medium of medical fellowships open to Chinese and British candidates. It is also hoped that honorary workers and holders of other fellowships for medical research will avail themselves of the opportunities provided by the Institute.

All communications to the Director, Henry Lester Inst., Shanghai, from whom full particulars may be obtained, or the London Secretaries, Lester Trust, Empire House, St. Martin's-le-Grand, E.C.r.

## XXV

## INTERNATIONAL FEDERATIONS

International Council of Scientific Unions (formerly International Research Council). Gen. Secretary—Sir Henry Lyons, F.R.S., Royal Society, Burlington House, London, W.I. This body was constituted in 1919, in pursuance of a resolution adopted in Nov. 1918 at a Conference in Paris at which the principal Allied Academies were represented. Under the auspices of the Council, International Unions have been formed for Astronomy, Geodesy and Geophysics, Chemistry, Mathematics, Physics, Radio-Telegraphy, Biological Sciences, and Geography.

UNION ACADÉMIQUE INTERNATIONALE (for co-operation in the advancement of studies by means of collective researches and publications in the fields of Archæology, History, Philology, and Moral, Political, and Social Science). The Union was constituted in 1919 on the initiative of the Académie des Inscriptions et Belles-Lettres. 19 nations of Europe, Asia, and America have each 2 representatives nominated by their Academies. The annual General Assembly is held at Brussels towards the end of May. President for 1932: M. C. van Vollenhoven (Leiden). Administrative Secretariat, Palais des Académies, Brussels.

Modern Humanities Research Association, founded 1918, for the encouragement of advanced study in Modern Languages and Literatures by co-operation. Has 62 correspondents and about 1000 members. Press organ: Modern Language Review, quarterly, 7s. Hon. Secy.: Wm. Atkinson, Armstrong College, Newcastle-upon-Tyne. Sub-Secy. for America: Dr. L. R. Bradley, 100 Washington Square East, New York City, U.S.A.

INTERNATIONAL INSTITUTE OF INTELLECTUAL CO-OPERATION. 2 rue de Montpensier, Paris. *Director*: M. Henri Bonnet. Since its inauguration in 1925 the Institute has served as the executive organ of the League of Nations International Committee on Intellectual Cooperation.

Aims. To promote the exchange of ideas and personal contact among intellectual workers in all countries. To further and facilitate co-operation among institutions concerned with intellectual problems; to aid in the spread of knowledge; to study in common certain problems of international import; to contribute to the international protection of intellectual rights; and encourage instruction in the principles of the League of Nations.

The Institute has endeavoured to assist the international co-ordination of intellectual work:

(a) By Meetings of Directors of Higher Education; of Directors of National University Offices; of Institutions for the Scientific Study

of International Relations; of Representatives of International Student Organizations; of Directors of International School Correspondence Bureaux; of experts on questions relating to the educational museums; of experts on the educational aspects of broadcasting; of experts on recorded music; of representatives of the commercial departments of casting workshops; of experts on the preservation of works of art; of the experts convened by the Institute's International Museums Office; of experts for the International Centre for Institutes of Art and Archæology; of the Bureau of the International Committee on Popular Arts; of experts representing scientific museums; of experts on the unification of scientific terminology; of library experts, of archivists; of experts on the international bibliography of translations; of representatives of legal institutions dealing specially with intellectual rights and the legal problems connected therewith; and of experts on the revision of school text-books.

(b) By Publications on: Holiday Courses in Europe (yearly); University Exchanges in Europe; International Student Associations; Institutions for the Scientific Study of International Relations; Reference Centres for International Affairs; The International Co-ordination of Libraries; National Information Services, Loan Systems and International Exchanges; Index Bibliographicus; International Code of Abbreviations for Titles of Periodicals; the International Protection of Copyright; Rights of the Scientist; Collections of Photographs of

Works of Art: Museums of Different Countries.

(c) By means of its Reviews including: "Bulletin de la co-opération intellectuelle" (yearly subscription: France, 35 Fr. frs.; other countries, 45 Fr. frs.); "Mouseion" (yearly subscription: France, 45 Fr. frs.; other countries, 60 Fr. frs.).

Some 40 countries have appointed National Committees on Intellectual Co-operation to serve as correspondents with the International Committee on Intellectual Co-operation and the International Institute.

The Confédération Internationale des Étudiants was formed at Strasbourg in 1919 by official representatives of the National Unions of Students of Belgium, Czecho-Slovakia, France, Luxembourg, Poland. Roumania, and Spain, and unofficial representatives of students of 10 other countries which had, at that time, no national unions. The Second Congress took place at Warsaw in Sept. 1924. Since then 4 Congresses have been held—at Rome in 1927, Paris, 1928, Budapest, 1929, Brussels, 1930. The next will be held at Riga, Aug. 1932. Membership has grown considerably, and the C.I.E. now includes the Nat. Unions of 29 countries. It includes also 8 free members and I associate member. The number of students represented is about one million. The C.I.E. also organized the Internat. Univ. Games at Rome in 1927, at Paris in 1928, at Davos and Darmstadt in 1930. It is also collaborating in the building of an Internat. Univ. Sanatorium at Levsin. Switzerland. The Confederation aims at promoting friendship between students and student bodies throughout the world, and the study of international questions relative to higher education and the conditions of student life. President-J. Pozaryszki, Pickna 4, Warsaw. Central

Office—22 Place de Brouckère, Brussels. Administrateur—R. Motz. Director of Commissions—I. S. Macadam, N.U.S., 3 Endsleigh Street, London, W.C.I.

The International Federation of University Women was founded in 1919 "to promote understanding and friendship between the university women of the nations of the world, and thereby to further their interests and develop between their countries sympathy and mutual helpfulness." It has branches in 36 countries. The Federation assists travelling members by providing introductions, and by the establishment of club-houses or other special facilities for accommodation in the chief centres of intellectual life. It provides travelling fellowships for women graduates (v. Appendix XXIII.), and promotes the exchange of university and secondary school teachers, librarians, museum curators, archivists, etc., between different countries. Tours of special scientific or other interest are arranged in different countries. Officers (1929-32): President, Prof. Winifred Cullis, Univ. of London; Vice-Presidents, Me. N. Schreiber-Favre, Geneva; Mme. Octave Monod, Paris; Prof. J. Westerdyk, Univ. of Utrecht; Treasurer, Dean Bernice Brown, Radcliffe Coll., Cambridge, Mass.; Secretary, Miss Theodora Bosanquet, Crosby Hall, Cheyne Walk, London, S.W.3. International Conferences are held triennially, and International Councils annually. The last Council meeting was held at Wellesley Coll., Mass., in April 1931. The next Conference will be held in July 1932 at Edinburgh. Crosby Hall was opened by the British Federation of Univ. Women, as a London residence for members of the Internat. Federation, at Easter 1927. The residence is intended primarily for graduate students carrying on research or other advanced work in London. Application for accommodation should be made to the Warden, Crosby Hall, London, S.W.3.

The World's Student Christian Federation is a federation of the national student Christian movements of 24 countries, having relations with students in 16 countries where there are not yet any regular national movements. It was founded at Vadstena, Sweden, in 1895, by five students' organizations from N. America, Gt. Britain, Germany, and Scandinavia. It endeavours to unite, and to promote mutual relations among, these movements throughout the world, and to collect and distribute information about the conditions of students in all lands from the religious and other points of view. It organizes international student conferences for the discussion of burning problems, religious, racial, educational, organizational. Publication: The Student World (quarterly). Headquarters: 13 rue Calvin, Geneva, Switzerland. Cable Code: Missions Code. Co-ordinating Secretary: Dr. W. A. Visser 't Hooft.

The International Student Service is an organization which seeks to promote the ideal of the three-fold function of the Univ. as a centre of the national culture, as the cultural interpreter of peoples to each other, and as the expression of the essential unity of civilization. It seeks this ideal by practical co-operation nationally and internationally. It admits of no distinction of race, nationality, or religion. It

appeals to student solidarity to give help in cases where the national univ. life has broken down. It attempts to make univ. education available to the talented of all classes by developing student co-operative methods. It essays to bring into closer contact the Univs. and other By conferences and publications it tries to sections of the national life. contribute to the evolution of the ideal univ., to mutual understanding of cultures and the removal of the many hostilities which disturb presentday univ. life.

The International Headquarters are at 13 and 14 rue Calvin,

Geneva (Switzerland).

Publications: Quarterly: I.S.S. Annals; News Sheet entitled More Facts (monthly); Annual Reports, Conference Reports, occasional papers.

The STUDENT CHRISTIAN MOVEMENT of Great Britain and Ireland is the British Branch of the World's Student Christian Federation. Publications: The Student Movement (monthly during term). Offices: Annandale, North End Road, Golders Green, London, N.W.11.

INTER-UNIVERSITY JEWISH FEDERATION of Gt. Britain and Ireland (federating all Jewish Univ. Societies in the U.K. and Ireland). Sec.: L. J. Stoll, 49 Southborough Rd., Hackney, London, E.9.

The Universities' Library for Central Europe was established towards the end of 1920 in order to co-ordinate and consolidate the work of securing (by gifts, exchange, and purchase) British books, journals, etc., for students, teachers, and libraries in the Universities of Central Europe. In conjunction with the League of Nations it has undertaken to accept literature from other countries for distribution anywhere in the United Kingdom, and, similarly, to distribute all over Central Europe books and periodicals received from Universities and learned societies in Great Britain. In 1926 it added to its other functions that of a clearing-house for reception and distribution of scientific books and periodicals from and between individuals and institutions in Great Britain and Ireland. Hon. Sec.: C. Fuller, B.A., Assistant Librarian, London School of Economics, Houghton St., London, W.C.2.

# XXVI

# UNIVERSITIES OF THE UNITED STATES OF AMERICA

In the 1076 Universities, Colleges, and Professional Schools which submitted returns for 1927-28 to the United States Office of Education, there were enrolled in that year 919,381 students, of whom rather more than one-third were women. Of these institutions 226 were under public and 850 under private control; 165 were independent professional schools. Of the total number of students 50,588 were in pre-matriculation departments and 44,165 were in graduate schools. Law students numbered 42,694; medical, 21,427; dental, 9282; theological, 13,642; pharmacy, 11,125; engineering, 66,637. For full information students in this country are advised to apply to the American University Union, British Division, I Gordon Square, London, W.C.I; on the continent of Europe to the Paris office of the Union, 173 Boulevard St. Germain. In Rome there is an American Academy at Porta San Pancrazio 29. In Belgium the Fondation Universitaire has its office at 11 rue d'Egmont, Bruxelles. In Berlin information concerning American universities may be secured from the Akademischer Austauschdienst, E.V. Schloss, or from the Amerika-Institut, Universität-Strasse 8. In Vienna the Austro-American Institute is located at I Elisabethstrasse 9. In Prague there is an American Institute. America reference may be made to the Institute of International Education, 2 West 45th Street, New York City. This Institute published, in 1931, a Guidebook for Foreign Students in the U.S.A. The BUREAU OF EDUCATION of the United States Department of the Interior published in 1921 a Bulletin (No. 39 of 1920) on "Facilities for Foreign Students in American Colleges and Universities." This is obtainable from the Government Printing Office, Washington, D.C., at 15 cents a copy. An Australian view of American Univ. life and organization is given in The American University, by E. R. Holme of the Univ. of Sydney (Angus and Robertson, Ltd., Sydney, 1920, 7s. 6d.). A description of American Univs. from the point of view of a French scientist is given in *Univer*sities and Scientific Life in the U.S.A., by Prof. M. Caullery (Oxford Univ. Press, 1922, 10s. 6d.).

International House, Riverside Drive, New York City, opened Sept. 1924, is a residential club for over 500 foreign and American students. A similar house has been opened at the Univ. of California, and a third is in process of building at the Univ. of Chicago. The requisite funds for these three International Houses were provided by John D. Rockefeller, Jr.

The British Library of Information, 551 Fifth Avenue, New York, established Dec. 1919 for the convenience of Americans desiring information on British current affairs, is a branch of the News Department of the Foreign Office, from which it is well supplied with official documents and other publications. It has become the recognized centre for information on British Empire affairs. Wherever possible, official documents are lent, on request, to American libraries under the usual inter-library loan conditions. Early copies of documents dealing with matters of general interest, such as foreign affairs, finance, education, social welfare, industrial relations, mineral and oil resources, etc., are received regularly direct from London. The Library also has an important file of documents on Indian affairs, and some of the leading Indian newspapers. It is free to the public, and information is given to all inquirers. The Library is the official agent in U.S.A. for publications of H.M. Stationery Office.

For information as to American University and College Scholarships for British students see Appendix XXIII. 35.

A BRITISH-AMERICAN ASSOCIATION OF PHI BETA KAPPA (founded 1776—a society of American University scholars of distinction) was formed in England in 1924 under the presidency of Lord Balfour. Address: American University Union, I Gordon Sq., London, W.C.I.

EXPENSES. Annual tuition fees range from a maximum of about \$500 in the large Eastern universities to a minimum of about \$50 in the State universities and small colleges of the Middle West. Living costs vary according to the size of the college or university, and the size of the town in which it is located. In general, living expenses in the South are a little less than in the Middle West, and in the Middle West a little less than in the West and East. The cost of an academic year of nine months may be reckoned at about \$1500 in the most expensive places, and \$650 in the least expensive. Transportation costs about four cents a mile.

AMERICAN DEGREES (non-professional). The following notes are based on a Report presented by a Committee of the American Council on Education to the French Ministry of Public Instruction: The American Colleges, both those which are independent institutions and the colleges of liberal arts within Universities, award the A.B. (or B.S.) degree to students who complete a 4 years' course. Ordinarily the student at the time of admission to the college is about 18 years of age and has completed a 4 years' course in a secondary school. considerable portion of his work at college belongs, however, to what in European countries is called secondary education. A peculiarity of the American system of grading, both in secondary and in higher institutions, is the weight attached to the length of time spent under instruction, a degree being attainable by gradual accumulation of a specified number of "credits" (certificates of definite periods of time spent successfully under instruction), which thus largely replace the examinations used in other countries for testing the student's capacity at various intervals. The college graduate who aspires to the degree of M.A. (or M.S.) proceeds to the Graduate School of a University (the professional schools of law, medicine, etc., with few exceptions, admit undergraduates), and there pursues his studies, either general or, if aiming at a subsequent doctorate, specialized, for one year. The Ph.D. requirements are ordinarily "3 years of resident study, beyond the baccalaureate, the presentation of a thesis embodying the results of original research, and the passing of a comprehensive examination testing the candidate's knowledge of his chosen field of learning."

The Report points out that higher education in the U.S.A. is largely autonomous, there being no control by the Federal Government and little control by the political authorities of any State. Such standardization as has been effected has come through the voluntary efforts of groups of institutions having similar ideals and purposes. Conspicuous among these is the Association of American Universities. The Scottish Universities Entrance Board exempts from the preliminary examination of the Scottish universities holders of certificates which admit to a regular course of study leading to a degree in Arts, Pure Science, or Medicine in any of the universities or colleges in the United States of

America included in the accepted list of colleges and universities

approved by the Association of American Universities.

The University of Cambridge grants exemption from the whole of the Previous examination to a student who has qualified for admission to one of the universities or colleges of the United States of America which has been approved by the Senate for the purposes of affiliation, and also to students who have passed the examinations of the American College Entrance Examination Board, provided examinations passed cover English, 3 units or an equivalent standard; Latin or Greek, 4 units or an equivalent standard; a third language, 3 units or an equivalent standard; and Mathematics, 3 units or an equivalent standard.

The University of Oxford grants senior standing to American students who hold the Bachelor of Arts degree from certain approved American universities, and junior standing to students who have pursued a course of study at such universities extending over two years, provided that the course has included the study of two languages other than English, Latin or Greek being one of these languages.

Below is given a list of 244 institutions approved by the Association of American Univs. This list has been adopted by most of the Univs. of the U.K. for the purpose of admission of graduates with a view to qualifying for the Ph.D. degree (v. p. 18). They may be

classified as:

I. 36 Univs. of complex organization, usually with graduate schools and certain professional and technological schools. These are the 29 members of the Assocn. (including McGill and Toronto), and Boston, New York, and Western Reserve and the Univs. of Cincinnati, Colorado,

Pittsburgh, and Washington.

II. 23 Technological Institutions: Agric. Coll. of Utah, Logan, Utah; California Inst. of Tech. (M), Pasadena, Cal.; Carnegie Inst. of Tech., Pittsburgh, Pa.; Case School of Applied Science (M), Cleveland, Ohio; Drexel Inst., Philadelphia, Pa.; Iowa State Coll., Ames, Iowa; Kansas State Agric. Coll., Manhattan, Kansas; Lehigh Univ. (M), South Bethlehem, Pa.; Louisiana State Univ., Baton Rouge, La.; Massachusetts Agric. Coll., Amherst, Mass.; Massachusetts Inst. of Tech., Cambridge, Mass.; Oregon Agric. Coll., Corvallis, Ore.; Pennsylvania State Coll., State College, Pa.; Polyt. Inst. of Brooklyn (M), Brooklyn, N.Y.; Purdue Univ., Lafayette, Ind.; Rensselaer Polyt. Inst. (M), Troy, N.Y.; Rose Polyt. Inst., Terre Haute, Ind.; Simmons Coll. (W), Boston, Mass.; State Coll. of Washington, Pullman, Wash.; Stevens Inst. of Tech. (M), Hoboken, N.J.; United States Military Academy, Westpoint, N.Y.; Univ. of Maryland, College Park, Md.; Worcester Polyt. Inst. (M), Worcester, Mass.

III. The remaining 185 Colleges: primarily organized with undergraduate curricula leading to the A.B. or B.S., in some cases with strong technological divisions, and occasionally a strong professional school.

Agnes Scott Coll. (W), Decatur, Ga.; Albion Coll., Albion, Mich.; Alfred Univ., Alfred, N.Y.; Allegheny Coll., Meadville, Pa.; Amherst

(M) For men only. (W) For women only.

All others co-educational.

Coll. (M), Amherst, Mass.; Baker Univ., Baldwin City, Kan.; Barnard Coll. (W), New York; Bates Coll., Lewiston, Me.; Beloit Coll., Beloit. Wis.; Berea Coll., Berea, Ky.; Bethany Coll., Bethany, West, Va.; Birmingham Southern Coll., Birmingham, Ala.; Boston Coll. (M), Chestnut Hill, Mass.; Bowdoin Coll. (M), Brunswick, Me.; Brigham Young Univ., Provo, Utah; Brown Univ., Providence, R.I.; Bryn Mawr Coll. (W), Bryn Mawr, Pa.; Bucknell Univ., Lewisburg, Pa.; Carleton Coll., Northfield, Minn.; Carthage Coll., Carthage, Ill.; Central Coll., Fayette, Mo.; Centre Coll. (M), Danville, Ky.; Coe Coll., Cedar Rapids, Iowa; Colby Coll., Waterville, Me.; Colgate Univ. (M), Hamilton, N.Y.; Coll. of the City of New York (M), New York, N.Y.; Coll. of Industrial Arts, Denton, Texas; Coll. of New Rochelle, New Rochelle, N.Y.; Coll. of the Pacific, Stockton, Cal.; Coll. of St. Catherine (W), St. Paul, Minn.; Coll. of St. Elizabeth (W), Convent Station, N.J.; Coll. of St. Teresa (W), Winona, Minn.; Coll. of William and Mary, Williamsburg, Va.; Coll. of Wooster, Wooster, Ohio; Colorado Coll., Colorado Springs, Col.; Columbia Coll., Dubuque, Ia.; Connecticut Coll. for Women (W), New London, Conn.; Converse Coll. (W), Spartanburg, S.C.; Cornell Coll., Mount Vernon, Iowa: Dartmouth Coll. (M), Hanover, N.H.; Davidson Coll. (M), Davidson, N.C.; Denison Univ., Granville, Ohio; De Pauw Univ., Greencastle, Ind.; Dickinson Coll., Carlisle, Pa.; Doane Coll., Crete, Neb.; Dominican Coll. (W), San Rafael, Cal.; Drake Univ., Des Moines, Iowa; Drury Coll., Springfield, Mo.; Duke Univ., Durham, N.C.; Earlham Coll., Richmond, Ind.; Elmira Coll. (W), Elmira, N.Y.; Emory Univ. (M), Atlanta, Ga.; Eureka Coll., Eureka, Ill.; Florida State Coll. for Women (W), Tallahassee, Fla.; Fordham Univ. (M), Fordham, N.Y.; Franklin Coll., Franklin, Ind.; Franklin and Marshall Coll. (M), Lancaster. Pa.: Furman Univ., Greenville, S.C.; George Peabody Coll., Nashville, Tenn.; Georgetown Univ. (M), Washington, D.C.; Gettysburg Coll., Gettysburg, Pa.; Goucher Coll. (W), Baltimore, Md.; Grinnell Coll., Grinnell, Iowa; Hamilton Coll. (M), Clinton, N.Y.; Hamiline Univ., St. Paul, Minn.; Haverford Coll. (M), Haverford, Pa.; Heidelberg Coll., Tiffin, Ohio; Hendrix Coll., Conway, Ark.; Hiram Coll., Hiram, Ohio; Hobart Coll., Geneva, N.Y.; Holy Cross Coll., Worcester, Mass.; Howard Coll., Birmingham, Ala.; Hunter Coll. of the City of New York, New York; Illinois Coll., Jacksonville, Ill.; Illinois Wesleyan Univ., Bloomington, Ill.; Illinois Woman's Coll. (W), Jacksonville, Ill.; Kalamazoo Coll., Kalamazoo, Mich.; Kenyon Coll. (M), Gambier, Ohio; Knox Coll., Galesburg, Ill.; Lafayette Coll. (M), Easton, Pa.; Lake Erie Coll. (W), Painesville, Ohio; Lake Forest Coll. Lake Forest, Ill.; Lawrence Coll., Appleton, Wis.; Macalester Coll., St. Paul, Minn.; Marietta Coll., Marietta, Ohio; Meredith Coll., Raleigh, N.C.; Miami Univ., Oxford, Ohio; Middlebury Coll., Middlebury, Vt.; Mills Coll. (W), Oakland, Cal.; Milwaukee-Downer Coll. (W), Milwaukee, Wis.; Monmouth Coll., Monmouth, Ill.; Morningside Coll., Sioux City, Iowa; Mount Holyoke Coll. (W), South Hadley, Mass.; Mount Union Coll., Alliance, Ohio; Muhlenberg Coll., Allentown,

(M) For men only.
(W) For women only.
All others co-educational.

Pa.; Municipal Univ. of Akron, Akron, Ohio; New York State Coll. for Teachers, Albany, N.Y.; North Central Coll., Naperville, Ill.; Oberlin Coll., Oberlin, Ohio; Occidental Coll., Los Angeles, Cal.; Ohio Univ., Athens, Ohio; Ohio Wesleyan Univ., Delaware, Ohio; Otterbein Coll., Westerville, Ohio; Our Lady of the Lake Coll., San Antonio, Texas; Park Coll., Parkville, Mo.; Pomona Coll., Claremont, Cal.; Radcliffe Coll. (W), Cambridge, Mass.; Randolph-Macon Coll. (M), Ashland, Va.; Randolph-Macon Woman's Coll. (W), Lynchburg, Va.; Reed Coll., Portland, Ore.; Rice Inst., Houston, Texas; Ripon Coll., Ripon, Wis.; Rockford Coll. (W), Rockford, Ill.; Rosary Coll. (W), River Forest, Ill.; Rutgers Coll. (M), New Brunswick, N.J.; St. Lawrence Univ., Canton, N.Y.; St. Louis Univ., St. Louis, Mo.; St. Stephen's Coll., Annandale-on-Hudson, N.Y.; Simpson Coll., Indianola, Iowa; Smith Coll. (W), Northampton, Mass.; Southern Methodist Univ., Dallas, Texas; Swarthmore Coll., Swarthmore, Pa.; Sweet Briar Coll. (W), Sweet Briar, Va.; Syracuse Univ., Syracuse, N.Y.; Texas Christian Univ., Fort Worth, Texas; Trinity Coll. (M), Hartford, Conn.; Trinity Coll. (W), Washington, D.C.; Tufts Coll., Medford, Mass.; Tulane Univ. (M), New Orleans, La.; Union Univ. (M), Schenectady, N.Y.; Univ. of Alabama, University, Ala.; Univ. of Arizona, Tucson, Ariz.; Univ. of Arkansas, Fayetteville, Ark.; Univ. of Buffalo, Buffalo, N.Y.; Univ. of Chattanooga, Chattanooga, Tenn.; Univ. of Delaware, Newark, Del.; Univ. of Denver, Denver, Colo.; Univ. of Florida (M), Gainesville, Fl.; Univ. of Georgia (M), Athens, Ga.; Univ. of Hawaii, Honolulu, Hawaii; Univ. of Idaho, Moscow, Ida.: Univ. of Kentucky, Lexington, Ky.; Univ. of Maine, Orono, Me.; Univ. of Mississippi, University, Miss.; Univ. of Montana, Missoula, Mont.; Univ. of Nevada, Reno, Nev.; Univ. of New Hampshire, Durham, N.H.; Univ. of North Dakota, University, N.D.; Univ. of Notre Dame (M), Notre Dame, Ind.; Univ. of Oklahoma, Norman, Okla.; Univ. of Oregon, Eugene, Ore.; Univ. of Redlands, Redlands, Cal.; Univ. of Richmond, Richmond, Va.; Univ. of Rochester, Rochester, N.Y.; Univ. of South Dakota, Vermilion, S.D.; Univ. of South Carolina, Columbia, S.C.; Univ. of Southern California, Los Angeles, Cal.; Univ. of the South (M), Sewanee, Tenn.; Univ. of Tennessee, Knoxville, Tenn.; Univ. of Utah, Salt Lake City, Utah; Univ. of Vermont, Burlington, Vt.; Univ. of Wyoming, Laramie, Wy.; Vanderbilt Univ., Nashville, Tenn.; Vassar Coll. (W), Poughkeepsie, N.Y.; Wabash Coll. (M), Crawfordsville, Ind.; Washburn Coll., Topeka, Kan.; Washington and Jefferson Coll. (M), Washington, Pa.; Washington and Lee Univ. (M), Lexington, Va.; Wellesley Coll. (W), Wellesley, Mass.; Wells Coll. (W), Aurora, N.Y.; Wesleyan Coll., Macon, Ga.; Wesleyan Univ. (M), Middletown, Conn.; Western Coll. for Women (W), Oxford, Ohio; Westminster Coll., Fulton, Mo.; Westminster Coll., New Wilmington, Pa.; Wheaton Coll. (W), Norton, Mass.; Whitman Coll., Walla Walla, Wash.; Whittier Coll., Whittier, Cal.; Willamette Univ., Salem, Oregon; William Jewell Coll. (M), Liberty, Mo.; Williams Coll. (M), Williamstown, Mass.; Wilson Coll. (W), Chambersburg, Pa.;

(M) For men only. (W) For women only.

All others co-educational.

Winthrop Coll. (W), Rock Hill, S.C.; Wittenberg Coll., Springfield,

Ohio; Wofford Coll., Spartanburg, S.C.

The following particulars of the 27 institutions in the United States belonging to the Assocn. of American Univs. have been kindly supplied by the Institute of International Education in New York. All are coeducational, except C.U.A., Clark, Harvard, Princeton, Virginia, and Yale, and even these, except C.U.A. and Princeton, admit women for graduate work. Fuller information, including particulars of equipment and research funds, library facilities, and facilities for publication of research results, is given in Opportunities for Study at American Graduate Schools, Bulletin, 1921, No. 6, of the United States Bureau of Education. The American Council on Education issued in 1928 American Universities and Colleges, ed. David Allan Robertson: Charles Scribner's Sons, N.Y.

California, University of (founded 1868), Berkeley, Cal. (State Univ.). *President*: R. G. Sproul, LL.D. *Faculties*: Letters and Sci., Agric., Mining, Engin. (Civil, Elect., Mech.), Chem., Comm., Educn., Jurispr., Librarianship, Med., Dentistry, Vocational Educn., Fine Arts, Law, Pharmacy.

Library: 760,000 vols. Teaching Staff: 1733 in 1931. Students, excluding Extension Courses, 19,235 in 1931; Summer Sessions in 1931, 6 weeks each, 7294 students.

CATHOLIC UNIVERSITY OF AMERICA (founded 1887), Washington, D.C. Rector: Rt. Rev. James Hugh Ryan, Ph.D., S.T.D., LL.D., Litt.D. Faculties: Theol., Canon Law, Arts and Sc., Engin., Law.

Library: 310,000 vols. Teaching Staff: 140. Students: 1300.

Summer School, 6 weeks, 891 students.

CHICAGO, UNIVERSITY OF (1891), Chicago, Ill. *President*: Robert M. Hutchins. *Faculties*: Arts, Lit. and Sc., Div., Law, Med., Comm. and Adm., Social Service Adm., Library.

Libraries: 940,000 vols. Teaching Staff: 792. Students: 13,646. Summer Quarter in all depts., 10 weeks.

CLARK (founded 1889), Worcester, Mass. President: Wallace W. Atwood.

Libraries: 137,000 vols., 500 journals. Teaching Staff: 40. Students: 339. Summer School, chiefly Geog. and Hist., six weeks, 224 students.

COLUMBIA (founded 1754), New York City. *President*: Nicholas Murray Butler, Ph.D., LL.D., D.Litt. *Faculties*: Arts, Pol. Sc., Philos., Pure Sc., Engin., Law, Med., Pharmacy, Archit., Journalism, Business, Educn. and Practical Arts.

Libraries: 1,305,596 vols. Teaching Staff: 2695. Resident Students, incl. Univ. classes (Univ. Extension), but excl. Summer Session, 26,586. Non-resident Students in Home Study, Extramural and Special Courses, 11,894. Summer Session in all depts., 6 weeks, 14,016 (/31).

The International Institute, established in 1923 with the aid of an annual contribution of \$100,000 for ten years from the International Education Board (founded by John D. Rockefeller, 1923), is an integral part of Teachers' Coll. which had in that year some 250 foreign

(W) For women only. All others co-educational.

students and over 100 Americans who held posts as teachers in other countries. The Institute's work comprises: (a) Presentation of general view of American educational system and its adaptation to foreign situations and problems; (b) visitation of American Schools for study of conditions and procedure; (c) investigation of educational conditions in foreign countries; (d) guidance of American students of European educn. through courses of instruction, direction of research work and annual visitation of schools by selected groups, in Germany under the direction of the Zentralinstitut für Erziehung und Unterricht, Berlin, in England under the London Day Training Coll., and in France under the direction of L'Office National des Universités; (e) publication of International Education Year-Book dealing with progress of educn. in various countries each yr., and completing once in 5 yrs. an account of every country in the world.

CORNELL (founded 1865), Ithaca, N.Y. *President*: Livingston Farrand, M.D., LL.D. *Faculties*: Arts and Sci., Med., Agric., Archit., Engin., Law, Vet., Home Econ.

Libraries: 830,000 vols. and pamphlets. Over 2000 current periodicals received. Teaching Staff: 1250. Students: 6156. Summer Session in all depts., 6 weeks, 2291 students.

HARVARD (founded 1638), Cambridge, Mass. President: Abbott Lawrence Lowell, LL.D. Faculties: Arts and Sci., Engin., Archit., Business Admn., Theol., Law, Educn., Med., Dentistry, Public Health.

Libraries: 3,165,400 vols. Teaching Staff: 1280. Students: 8442.

Summer Session, 6 weeks, 2482 students.

ILLINOIS, UNIVERSITY OF (founded 1867), Urbana, Ill. (State Univ.). President: Harry Woodburn Chase, Ph.D., LL.D., L.H.D. Faculties: Liberal Arts and Sciences, Comm. and Business Admin., Engin., Agric, Law, Educn., Fine and Applied Arts, Journalism, Graduate, Med., Dentistry, Pharmacy, Music, Library Sci., Railway Engin. and Admn.

Library: 877,884 vols. Teaching Staff: 1204 (Research, Extension and Admin. Staff: 286). Students: 14,986. Summer Session in all depts., 8 weeks, 3088 students.

INDIANA (founded 1820), Bloomington, Ind. (State Univ.). President: Wm. Lowe Bryan, Ph.D., LL.D. Faculties: Arts, Med., Educn., Law, Comm. and Finance, Music, Nurses Training, Dentistry.

Library: 220,000 vols. Teaching Staff: 308 (/31). Students: 4593. Summer Session in all depts., 9 weeks.

IOWA, STATE UNIV. OF (founded 1849), Iowa City. President: W. A. Jessup, Ph.D. Faculties: Liberal Arts, Law, Med., Dentistry, Pharmacy, Applied Sc., Educn., Comm., Nursing, Journalism, Music, Fine Arts, Letters.

Library: 360,000 vols. Teaching Staff: 533. Students: 9900. Summer Session in all depts., 11 weeks, 4929 students.

JOHNS HOPKINS (founded 1876), Baltimore, Maryland. *President*: Joseph Sweetman Ames, Ph.D., LL.D. *Faculties*: Philos., Med., Engin., Hyg. and Pub. Health, Internat. Relations, Institute of Law.

Libraries: 401,000 vols. Teaching Staff: 680. Students: 5368. Summer Session, 1931, in all depts., 6 weeks, 1446 students.

KANSAS, UNIV. OF (1866), Lawrence, Kansas (State Univ.). Chancellor: E. H. Lindley, Ph.D. Faculties: Arts, Engin. and Archit.. Law, Fine Arts, Pharmacy, Med., Educn., Liberal Arts and Sc., Business.

Library: 236,000 vols., 2300 periodicals. Teaching Staff: 250. Students: 7715. Summer Session in all depts., 10 weeks, 1869 students.

MICHIGAN, UNIV. OF (1817), Ann Arbor, Mich. (State Univ.). President: Alexander Grant Ruthven, Ph.D., LL.D. Faculties: Lit., Sc. and Arts, Engin., Archit., Med., Law, Pharmacy, Dental Surg., Educn., Bus. Admn., Forestry and Conservation, Nursing, Music.

Libraries: 799,573 vols., 5361 periodicals. Teaching Staff: 887 (/31).

Students: 15,500. Summer Session, 4-10 weeks, 3995 students.

MINNESOTA, UNIV. OF (1851), Minneapolis, Minn. (State Univ.). President: L. D. Coffman, Ph.D. Faculties: Sc., Lit. and Arts, Engin., Archit., Chem., Agric., Forestry, Home Econ., Law, Med., Dentistry, Mining, Pharmacy, Educn., Business Admn.

Library: 650,000 vols. Teaching Staff: 689. Students: 29,432.

Summer Session in all depts., II weeks, 6210 students.

MISSOURI, UNIV. OF (1839), Columbia, Mo. (State Univ.). President: Walter Williams. Faculties: Arts and Sci., Educn., Business and Public Admn., Law, Engin., Agric., Med., Journalism, Mines and Metall.. Fine Arts.

Library: 282,409 vols., 2500 pamphlets, 2000 periodicals. ing Staff: 455. Students: 7667. Summer Session in all depts., 8 weeks, 2291 students.

NEBRASKA, UNIV. OF (1869), Lincoln, Neb. (State Univ.). Chancellor: Edgar A. Burnett, D.Sc. Faculties: Agric., Med., Pharmacy, Engin., Arts and Sc., Business Admn., Dentistry, Law, Teachers, Fine Arts, Nursing, Journalism.

Library: 245,896 vols. Teaching Staff: 346 (/31). Students: 10,052. Summer Session in all depts., 6-9 weeks.

NORTH CAROLINA, UNIV. of (founded in 1789), Chapel Hill, N.C. President: Frank P. Graham, M.A., LL.D., Litt.D. Faculties: Liberal Arts, Applied Sci., Educn., Comm., Law, Med., Pharmacy, Engin., Public Admn.

Libraries: 23,512 vols., 1700 current periodicals. Teaching Staff: 215. Students: 2825. Summer School in all depts., 12 weeks, 1850 students.

NORTHWESTERN (founded 1851), Evanston, Ill. President: Walter Dill Scott, Ph.D., LL.D. Faculties: Med., Law, Dentistry, Music, Comm., Speech, Liberal Arts, Engin., Journalism, Educn.

Library: 355,570 vols., 200,000 pamphlets. Teaching Staff: 1116. Students: 16,095. Summer Session in all depts., 8 weeks, 2513 students.

OHIO STATE UNIV. (founded 1870), Columbus, Ohio. President: G. W. Rightmire. Faculties: Agric., Liberal Arts, Comm., Educn., Engin., Dentistry, Law, Med., Pharm., Vet. Med., Social Admn.. Journalism, Home Econ.

Library: 384,540 vols. Teaching Staff: 1064. Students: 15,693.

Summer Quarter, 101 weeks, 4800 students.

Pennsylvania, University of (founded 1740), Philadelphia, Pa. *President*: Thomas S. Gates, Ph.B., LL.B., LL.D. *Faculties*: Arts, Science, Educn., Engin., Comm., Fine Arts, Med., Law, Dentistry, Vet. Med.

Libraries: 740,294 vols., 65,000 pamphlets. Teachers: 1443. Students: 15,800. Summer School, 5\frac{1}{2} weeks, 2070 students.

PRINCETON (founded in 1746), Princeton, N.J. President: J. G. Hibben, Ph.D., LL.D., Litt.D. Faculties: Arts, Science, Engin., Archit., School of Public and International Affairs.

Libraries: 650,000 vols., 116,000 periodicals and pamphlets. Teaching Staff: 343. Students: 2464. No Summer Session.

STANFORD (founded 1891), California. *President*: Ray Lyman Wilbur. *Faculties*: Arts, Educn., Law, Med., Business, Engin.

Libraries: 500,000 vols. Teaching Staff (including assts.), 683. Students: 4581 (/30-31). Summer Quarter in all depts. except Educn., 10 weeks; in Educn., 8 weeks. 1135 students (/31).

Texas, Univ. of (1883), Austin, Texas (State Univ.). *President*: Harry Yandell Benedict, Ph.D., LL.D. *Faculties*: Arts and Sci., Law, Med., Engin., Educn., Business Admn., Pharmacy.

Libraries: 381,914 vols. Teaching Staff: 415. Students: 6381. Summer Session in all depts. except Pharmacy and Med., 2 terms of 6 weeks each, 4171 students.

UNIVERSITY OF VIRGINIA (founded in 1819), Charlottesville, Va. (State Univ.). Acting President: James Lloyd Newcomb., B.A., C.E. Faculties: Arts, Law, Med., Engin., Educn.

Libraries: 177,202 vols. Teaching Staff: 150 (/31). Students: 2508. Summer Quarter in all depts., 10 weeks, 2374 students.

WASHINGTON UNIVERSITY (founded in 1853), St. Louis, Missouri. Chancellor: George Reeves Throop, Ph.D., LL.D. Faculties: Liberal Arts, Engin. and Archit., Business and Public Admn., Bot., Law, Med., Dent., Fine Arts, Nursing.

Library: 305,446 vols., 106,546 pamphlets. Teaching Staff: 580. Students: 3736. Summer School, 938 students.

WISCONSIN, UNIV. OF (1849), Madison, Wis. (State Univ.). President: Glenn Frank, Litt.D. Faculties: Letters and Sc., Engin., Agric., Law, Med., Educn. The U.S. Forest Products Laboratory is situated here.

Library: 974,000 vols., 416,000 pamphlets. Teaching Staff: 635 (/30-31). Students: 10,001. Summer Session, 6 weeks (Law and special grad. courses, 9 wks.), 5088 students.

YALE (founded 1701), New Haven, Conn. *President*: J. R. Angell, Ph.D., Litt.D., LL.D. *Faculties*: Arts, Sci., Med., Div., Law, Fine Arts, Music, Forestry, Nursing.

Libraries: 1,500,000 vols., 13,000 periodicals. Teaching Staff: 754. Students: 5914.

## XXVII

# ANGLO-AMERICAN RELATIONS

### PROFESSORSHIPS

GEORGE WATSON PROFESSORSHIP. Founded by Sir W. G. Watson, Bt., who presented £20,000 for the purpose on the occasion of the return of the Prince of Wales from his American tour. Each year's course will usually comprise about 6 lectures by an eminent authority, American or British. The courses will be given in the various British Univs. in rotation. A general Inaugural Lecture was given in London by the late Viscount Bryce, O.M., in July 1921. This and the following lectures have been published in England by the Cambridge Univ. Press: 1922, Dr. A. T. Hadley (ex-President of Yale); 1923, Dr. Nicholas Murray Butler (President of Columbia Univ.); 1924, Prof. A. F. Pollard (University Coll., London); 1925, Sir Robert Falconer (President of Toronto Univ.); 1926, Dr. Robert McElroy (Harold Vyvyan Harmsworth Prof. of American Hist. at Oxford Univ.); 1927, Dr. Claude H. Van Tyne (Prof. of Hist., Michigan); 1928, Dr. R. C. Coupland (Beit Prof. of Colonial Hist., Oxford Univ.); 1929, Dr. John H. Finley (Assoc. Editor, New York Times); 1930, Prof. G. S. Gordon, President of Magdalen Coll., Oxford; 1931, Hon. James M. Beck, Member of Congress, U.S.A. The Foundation is administered by the Sulgrave Manor Board, I Central Buildings, Westminster, London, S.W.I.

GEORGE EASTMAN VISITING PROFESSORSHIP, tenable at Oxford Univ. The holder shall be, at the time of his election, a citizen of the U.S.A., eminent in teaching or research, and he shall give instruction in the subject of study in respect of which he is appointed. Appointment—not less than I nor more than 5 yrs., but re-eligible.

HAROLD VYVYAN HARMSWORTH PROFESSORSHIP OF AMERICAN HISTORY, tenable at Oxford Univ. The Prof. shall be, at the time of his election, a citizen of the U.S.A. Appointment—5 yrs. from date of election, but re-eligible. Salary, £1200 p.a.

COMMONWEALTH FUND PROFESSORSHIP OF AMERICAN HISTORY, tenable at the Univ. of London, University College. The Commonwealth Fund of New York has appropriated a sum of \$214,500 to endow a Department of American History at University College, London, including a professorship and assistants. A sum of £4866, raised in London and New York, will be available for a library of American History at the College, and a library on the same subject at the Institute of Historical Research, Malet Street, London, W.C.I.

The American Universities are constantly inviting distinguished British scholars to lecture on British History and institutions, so that the need for the establishment of special foundations for the purpose has not been felt in the United States.

## XXVIII

## BUREAUX OF INFORMATION

Among foreign organizations useful to British students the following may be mentioned:

Austria—(1) Kursorganisation der Wiener medizinischen Fakultät, Vienna ix. 1, Porzellang. 22, from which programmes of medical courses for foreigners and others can be obtained; (2) Minerva Buro, Vienna viii., Schlösselgasse 22 (information about board and lodging); (3) Wiener Internat. Hochschul Kurse, Vienna ix., Boltzmanngasse 16.

Denmark—Anglo-Danish Students' Bureau, 88a Gower Št., London, W.C.I. Director: Mr. J. H. Helweg, Cand. Mag.

Egypt—Educational Mission in England, 39 Victoria St., Westminster, London, S.W.r.

France—Office National des Universités et Écoles Françaises, 96 Boulevard Raspail, Paris. Mons. Petit-Dutaillis, Director; Mons. A. Desclos. Asst. Dir.

London Branch: r-7 Cromwell Gardens, London, S.W.7. Mons. D. Saurat, D. ès L., Director; Mons. J. Manchon, Director of Studies; Mons. L. E. Genissieux, Asst. Dir. and Sec. The Office published in 1925 a comprehensive Handbook giving information about the French universities and the entire system of organization of education in France. Price 5s. The French Ministry of Public Instruction announced on Sept. 17, 1926, the admission to equivalence with the "baccalauréat de l'enseignement secondaire français" of every certificate of matriculation issued by one of the Universities of the United Kingdom and every diploma accompanied by an attestation of the Universities Bureau of the British Empire certifying that the diploma entitles its holder to admission as a regular student to degree courses in one of those universities.

Germany—Deutsches Institut für Ausländer, Universität Berlin, C 2 Universitätsgebäude. Publishes, monthly, Mitteilungen.

Deutscher Akademische Austauschdienst, Berlin, C2, Schloss. Director: Dr. Morsbach. Its object is to further relations between German and English Univs. and to promote exchanges of students between the two countries.

London Branch: Anglo-German Academic Bureau, 58 Gordon Square, London, W.C.I. Director: Dr. jur. E. Deissmann.

There is an Akademisches Auskunftsamt (Information Bureau) attached to most German Universities.

Holland—Netherlands Committee for International Academic Relations, 33 Wasstraat, Leyden.

Italy—Istituto Interuniversitario Italiano, R. Palazzo Venezia, N. 118, Roma. [There is a *British Institute* at Florence, Palazzo Antinori, Piazza Antinori 3, comprising a School in English for Italians, with 3 years' (elementary), 2 years' (higher), and 2 years' (finishing)

courses, a reading-room and library, and the organizing of lectures, concerts, etc. Its Higher Diploma is of the standard of the Doctorate of an Italian Univ. Director: Dr. H. Goad.]

Norway—Studie-Oplysningskontoret, Universitet, Oslo. Spain—Centro de Estudios Historicos, Almagro 26, Madrid.

Switzerland—Office Central Universitaire Suisse, rue de l'Hôpital 30,

Berne. Director: Dr. P. Fluckiger.

U.S.A.—American University Union, I Gordon Square, London, W.C.I (London branch of the Institute of International Education, New York). Director: Mr. Willard Connely, A.M., M.A.

# XXIX

# SHORT BIBLIOGRAPHY

1909. Principles and Methods of University Reform. By Lord Curzon of Kedleston [deals with Oxford University]. Oxford. Clarendon Press, 2s. 6d. net.

1910. Universities and National Life. By Viscount Haldane. London. John Murray. 3s. 6d. net.

1911. The Meaning of a University. By Sir Walter Raleigh. Oxford. Clarendon Press. 1s. net.

1921. Universities and their Freedom. By W. M. Childs, M.A. London. Arthur L. Humphreys. 2s.

1923. University Extension: A Survey of Fifty Years, 1873-1923. By W. H. Draper. Cambridge University Press. 3s. 6d.

1923. The Older Universities of England, Oxford, and Cambridge. By Albert Mansbridge. Based on a course of Lectures delivered on the Lowell Foundation, Boston, Mass., March 1922. London. Longmans Green & Co. 7s. 6d.

1924. The Poor Student and the University. A Report of the Scholarship System, with Particular Reference to Awards made by Local Education Authorities. By G. S. M. Ellis. London. Labour Publishing Co. 2s. 6d.

1924. The Universities and Educational Systems of the British Empire. By Prof. A. P. Newton. [Vol. X. The British Empire: A Survey, in 12 vols.] London. W. Collins, Sons, & Co., Ltd. 6s.

1927. A History of the University of Oxford. Vol. III. Modern Oxford. By Sir Charles E. Mallet. London. Methuen & Co. 21s. net.

1927 and 1930. The Degrees and Hoods of the World's Universities and Colleges. By Frank W. Haycraft. 3rd edn., 4s. 6d.; Supplement, 1930, 2s. 3d. London and Cheshunt. The Cheshunt Press, Ltd.

1928. Students' Life and Work in the University of Cambridge. By Karl Breul. 3rd edn. Cambridge. Bowes & Bowes. 2s. net.

1928. The New Universities. By H. G. G. Herklots. London. Ernest Benn, Ltd. 6s.

1928. On the Scope and Nature of University Education. By J. H. Newman. London, J. M. Dent. 2s. net. [Originally published in 1852.]

1929. England. By Wilhelm Dibelius. (Book IV. Education.) [First pubd. in German in 1922.] London. Jonathan Cape. 15s.

1930. The Life of a Modern University. By Edwin Barker (and others). London. Student Christian Movement Press. 2s.

1930. Universities—American, English, German. By Abraham Flexner. Oxford University Press. 16s.

1930. The British Universities. By Sir Charles Grant Robertson, M.A., C.V.O. London. Ernest Benn, Ltd. 6d.

1931. Universities in Great Britain: Their Position and their Problems. By Ernest Barker, Litt.D., D.Litt., LL.D. London. Student Christian Movement Press. 3s. 6d.

1931. The Government of Oxford. Oxford University Press. 3s. 6d.

1931. Select Discourses from The Idea of a University. By John Henry Newman. Edited by May Yardley, B.A. (Landmarks in the History of Education Series.) Cambridge University Press. 5s. [The original work (1852) is out of print.]

1913. Royal Commission on the University of London. Final Report. London. H.M. Stationery Office. [Cd. 6717.] 2s.

1918. Royal Commission on the University of Wales. Final Report. London. H.M. Stationery Office. [Cd. 8991.] 1s.

1920. Royal Commission on the University of Dublin (Trinity College). Report. London. H.M. Stationery Office. [Cmd. 1078.] 4d. net.

1922. Royal Commission on Oxford and Cambridge Universities. Final Report. London. H.M. Stationery Office. [Cmd. 1588.] 6s. Out of print.

University Grants Committee. Returns from Universities and University Colleges in Receipt of Treasury Grant. (Published annually.) 1930–31. London. H.M. Stationery Office. 1s. 3d. net.

Congress of Universities of the Empire: Report of Proceedings. 1st, 1912, Universities Bureau, 7s. 6d.; 2nd, 1921, 7s. 6d.; 3rd, 1926, 7s. 6d.; 4th, 1931, 21s. 1921 onwards pubd. by G. Bell & Sons, Ltd., London.

1910-20. Cambridge University Historical Register to the Year 1910. 20s.; Supplement, 1911-20, 8s. 6d. Cambridge University Press.

The Student's Handbook to the University and Colleges of Cambridge. 30th edn. Revised to June 30, 1931. Cambridge University Press.

Students' Handbooks are issued by a number of Universities, University Colleges, and University Students' Unions, including the following: Exeter; Leeds; Liverpool; London—University College and King's College; Nottingham; Wales; Aberdeen; Edinburgh; Glasgow.

Handbook of Indian Universities. Inter-University Board, India. Annual. Rs. 2 or 3s.

Vacation Courses in England and Wales and Scotland. 6d. net. (Issued annually by the Board of Education.) London. H.M. Stationery Office.

Table of Holiday Courses on the Continent for Instruction in Modern Languages and other Subjects. 4d. net. (Issued annually by the Board of Education.) London. H.M. Stationery Office.

Handbook of Student Travel in Europe. 3rd edn. 1931. International Confederation of Students, Commission for Internat. Relations and Travel, 3 Endsleigh Street, London, W.C.1.

The Intelligent Student's Guide to Europe. 1931-32. International Confederation of Students, Commission for Internat. Relations and Travel, 3 Endsleigh St., London, W.C.I.

A List of International Fellowships for Research. The International Federation of University Women. Pamphlet No. 4. 1930. IS.

Fellowships and Scholarships open to Foreign Students for Study in the United States. Bulletin issued by the Institute of International Education, New York.

University Exchanges in Europe. English, 2nd edn., 1929, 3s. 6d. or \$1; French, 2nd edn., 1932, 18 Fr. frs.; German edn., 1928, RM. 2.50.

Les Associations internationales d'étudiants. 1931. 5 frs. League of Nations Institute of Intellectual Co-operation, 2 rue de Montpensier, Paris 1er.

Holiday Courses in Europe, 1932. Compiled by the League of Nations Institute of Intellectual Co-operation. English edn., Oxford University Press, London, E.C.4, 1s.; The World Peace Foundation, 40 Mount Vernon St., Boston, Mass., 50 cents. French edn., Librarie Vuibert, 63 Boulevard Saint-Germain, Paris Ve., 5 frs. German edn., Alfred Lorentz, Kurprinzstrasse 10, Leipzig, RM. 1.

Calendars of the various Universities.

Directories of the Universities and other learned institutions of the world. Minerva, Walter de Gruyter & Co., Berlin and Leipzig, Vol. I. A-L, Vol. II. M-Z, Vol. III. Index and Register. Index Generalis (by Prof. de Montessus de Ballore, 4 editions, French, English, American, Spanish), annually. Editions Spes, 17 rue Soufflot, Paris; London Agents: Dent & Sons, Ltd., 10 Bedford St., W.C.2.

[The Editor will be glad to receive suggestions with regard to this list.]

### ADDENDUM TO APPENDIX XXIII

Bourses Universitaires. Five bourses of the value of 8000 frs., plus free tuition, have recently been established by the French Government to be awarded annually on the nomination of Vice-Chancellors and Principals to graduates of British and Irish Universities for study or research at French Universities. Nominations to be received by the Secretary, Universities Bureau of the British Empire, 88A Gower Street, London, W.C.2, by June 30. Further particulars on application.

OF

### STAFF AND OFFICIALS

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